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DICTIONARY FILE UPDATES:  26 OCT 2006  HIGHEST RN 911358-36-6

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=> d que sta l10
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FILE 'HCAPLUS' ENTERED AT 11:21:07 ON 27 OCT 2006
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FILE COVERS 1907 - 27 Oct 2006  VOL 145 ISS 18
FILE LAST UPDATED: 25 Oct 2006  (20061025/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d bib abs hitrn fhitseq retable l21 tot

L21  ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2003:150522  HCAPLUS
DN   138:198665
TI   Contulakin-G, analogs thereof and uses therefor
IN   Wagstaff, John D.; McCabe, R. Tyler
PA   Cognetix, Inc., USA
SO   U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 606,247.
     CODEN: USXXAM
```

DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US---6525021	B1	20030225	2000US-0609534	20000630
	US---6369193	B1	20020409	1999US-0420797	19991019
	US---6344551	B1	20020205	2000US-0605990	20000629
	US---6489298	B1	20021203	2000US-0605991	20000629
	US---6696408	B1	20040224	2000US-0606247	20000629
	US2005203003	A1	20050915	2002US-0067857	20020208
	US2004072758	A1	20040415	2003US-0695516	20031029
PRAI	1998US-105015P	P	19981020		
	1999US-128561P	P	19990409		
	1999US-130661P	P	19990423		
	1999US-0420797	A3	19991019		
	2000US-0606247	A2	20000629		
	2002US-0067857	A1	20020208		

OS MARPAT 138:198665

AB The invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivs. thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurol., neuropharmalogical and neuropsychopharmacol. disorders.

IT **499802-77-6**, Contulakin-G (Conus geographus venom)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; contulakin-G, analogs and uses therefor)

IT **229180-41-0**, Contulakin G **499802-79-8**
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(contulakin-G, analogs and uses therefor)

IT **499805-87-7 499805-89-9**
RL: PRP (Properties)
(unclaimed protein sequence; contulakin-G, analogs thereof and uses therefor)

IT **499802-77-6**, Contulakin-G (Conus geographus venom)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; contulakin-G, analogs and uses therefor)

RN 499802-77-6 HCAPLUS
CN Contulakin-G (Conus geographus venom) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LMLGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon			407	Webster's II New Riv	
Clineschmidt, B	1979	54	129	Eur J Pharmacol	HCAPLUS
Craig		274	13752	J Biol Chem	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS

Dubuc, I	1999	381	9	Eur J Pharmacol	HCAPLUS
Dubuc, I	1999	19	503	J Neurosci	HCAPLUS
Kinkead, B	1999	46	340	Biol Psychiatry	HCAPLUS
Nemeroff, C	1992	668	146	Ann NY Acad Sci	HCAPLUS
Olivera	1995			US---5432155 A	HCAPLUS
Olivera	1997			US---5700778 A	HCAPLUS
Shandra, O	1993	39	76	Fiziol Zh	MEDLINE
Tyler, B	1998	792	246	Brain Res	HCAPLUS
Vincent, J	1999	20	302	Trends Pharmacol Sci	HCAPLUS

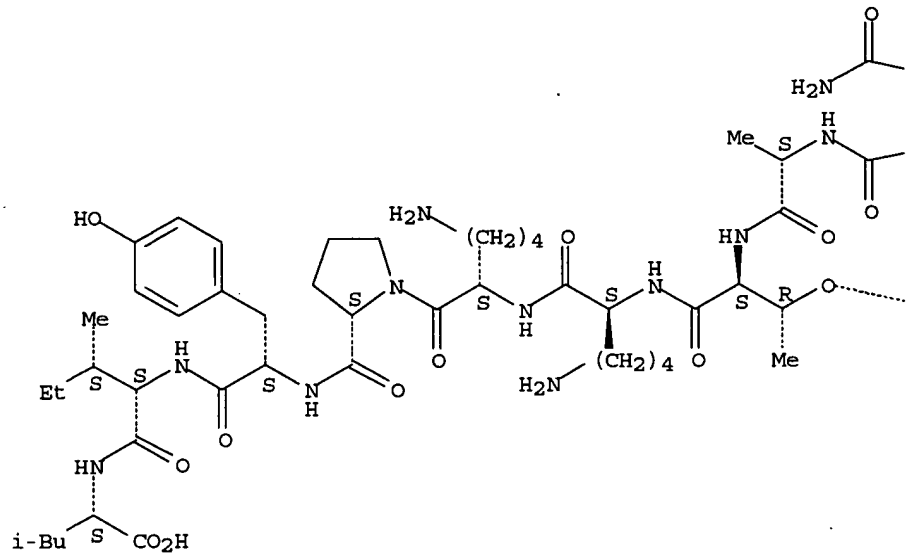
L21 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:64870 HCAPLUS
DN 134:276739
TI Enzymatic glycosylation of contulakin-G, a glycopeptide isolated from Conus venom, with a mammalian ppGalNAc-transferase
AU Craig, A. G.; Park, M.; Fischer, W. H.; Kang, J.; Compain, P.; Piller, F.
CS The **Salk Institute**, The Clayton Foundation Laboratories for Peptide Biology, La Jolla, CA, 92037, USA
SO Toxicon (2001), 39(6), 809-815
CODEN: TOXIA6; ISSN: 0041-0101
PB Elsevier Science Ltd.
DT Journal
LA English
AB The authors have determined that the mammalian uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T1 (EC 2.4.1.41) has the appropriate acceptor substrate specificity to recognize the non-glycosylated form of contulakin-G (ZSEEGGSNATKKPYIL-OH where Z = pyroglutamic acid) and to transfer GalNAc to the peptide. Both [Thr10] contulakin-G and a pre-contulakin-G30-66 (RGLVPDDITPQLILGSLISRRQSEEGGSNATK KPYIL-OH) were shown to be acceptors for the mammalian enzyme. The site of attachment of the GalNAc residue was determined using chemical and radioactive sequencing techniques. The mammalian enzyme was highly specific for Thr10 residue, in which the native peptide was found to be glycosylated, compared with either Ser2 or Ser7. In the case of pre-contulakin-G, the enzyme was also highly specific for the equivalent threonine residue. These results suggest that the Cone snail uses an enzyme with similar acceptor specificity to that of the mammalian polypeptide N-acetylgalactosaminytransferase for glycosylating contulakin-G.
IT **229180-41-0**, Contulakin-G **332345-91-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enzymic glycosylation of the Conus venom glycopeptide contulakin-G with a mammalian ppGalNAc-transferase)
IT **229180-41-0**, Contulakin-G
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enzymic glycosylation of the Conus venom glycopeptide contulakin-G with a mammalian ppGalNAc-transferase)
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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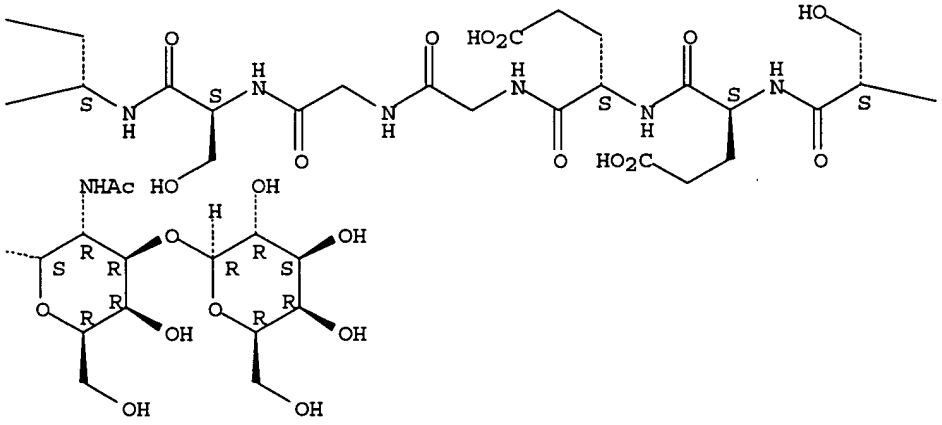

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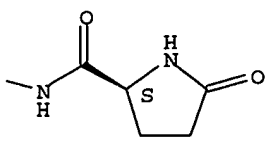

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Craig, A	1998	37	16019	Biochemistry	HCAPLUS
Craig, A	2000			In preparation	
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Gooley, A	1991	178	1194	Biochem Biophys Res	HCAPLUS
Gooley, A	1997	385	557	Nature	HCAPLUS
Hansen, J	1997			http://www.cbs.dtu.d	
Hassani, O	1999	443	175	FEBS Lett	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Sandstrom, C	2000			Submitted for public	
Van den Steen, P	1998	33	151	Crit Rev Biochem Mol	HCAPLUS
Wagstaff, J	1999	25	1944	Proceedings of the 2	
Walker, C	1999	274	30664	J Biol Chem	HCAPLUS
Yoshida, H	1976	15	61	Biochemistry	HCAPLUS

L21 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:277864 HCAPLUS
DN 132:303507
TI Contulakin-G and analogs for therapeutic use
IN Craig, A. Grey; Griffen, David; Olivera, Baldomero M.; Watkins, Maren; Hillyard, David R.; Imperial, Julita; Cruz, Lourdes J.; **Wagstaff, John D.**; **Layer, Richard T.**; Jones, Robert M.; McIntosh, J. Michael; **McCabe, R. Tyler**
PA **Cognetix**, Inc., USA; University of **Utah Research Foundation**; **Salk Institute**
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000023092	A1	20000427	1999WO-US24380	19991020
	WO2000023092	C2	20020822		
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA---2347713	AA	20000427	1999CA-2347713	19991020
	AU---9965203	A1	20000508	1999AU-0065203	19991020
	AU----766294	B2	20031016		
	EP---1123109	A1	20010816	1999EP-0953226	19991020
	EP---1123109	B1	20030924		
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	JP2002527093	T2	20020827	2000JP-0576865	19991020
	AT----250627	E	20031015	1999AT-0953226	19991020
	ES---2207970	T3	20040601	1999ES-0953226	19991020
	HK---1039570	A1	20041015	2002HK-0101114	20020215
	US2004072758	A1	20040415	2003US-0695516	20031029
PRAI	1998US-105015P	P	19981020		
	1999US-128561P	P	19990409		
	1999US-130661P	P	19990423		
	1999US-0420797	A1	19991019		
	1999WO-US24380	W	19991020		
	2002US-0067857	A1	20020208		

OS MARPAT 132:303507
AB The present invention is directed to contulakin-G (which is the native

glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10-contulakin-G), and derivs. thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesic, antipsychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurol., neuropharmacol. and neuropsychopharmacol. disorders.

IT **264900-54-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(amino acid sequence; contulakin-G and analogs for therapeutic use)

IT **229180-41-0**, Contulakin G
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(contulakin-G and analogs for therapeutic use)

IT **229180-42-1D**, glycoconjugates **264915-05-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(contulakin-G and analogs for therapeutic use)

IT **264915-08-4**
RL: PRP (Properties)
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)

IT **264900-54-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(amino acid sequence; contulakin-G and analogs for therapeutic use)

RN 264900-54-1 HCAPLUS
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LMLGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Craig	1999	274	13752	J Biol Chem	HCAPLUS
Olivera	1995			US---5432155 A	HCAPLUS

L21 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:351870 HCAPLUS
DN 131:84192
TI Contulakin-G, an O-glycosylated invertebrate neurotensin
AU Craig, A. Grey; Norberg, Thomas; Griffin, David; Hoeger, Carl; Akhtar, Mateen; Schmidt, Karsten; Low, William; Dykert, John; Richelson, Elliott; Navarro, Valerie; Mazella, Jean; Watkins, Maren; Hillyard, David; Imperial, Julita; Cruz, Lourdes J.; Olivera, Baldomero M.
CS Clayton Foundation Laboratories Peptide Biology, Salk Institute, La Jolla, CA, 92037, USA
SO Journal of Biological Chemistry (1999), 274(20), 13752-13759

CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The authors have purified contulakin-G, a 16-amino acid O-linked glycopeptide (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH, pGlu is pyroglutamate) from Conus geographus venom. The major glycosylated form of contulakin-G was found to incorporate the disaccharide β-D-Galp-(1→3)-α-D-GalpNAc-(1→) attached to Thr10. The C-terminal sequence of contulakin-G shows a high degree of similarity to the neurotensin family of peptides. Synthetic peptide replicates of Gal(β→3) GalNAc(α→)Thr10 contulakin-G and its nonglycosylated analog were prepared using an Fmoc (9-fluorenylmethoxycarbonyl) protected solid phase synthesis strategy. The synthetic glycosylated contulakin-G, when administered intracerebroventricular into mice, was found to result in motor control-associated dysfunction observed for the native peptide. Contulakin-G was found to be active at 10-fold lower doses than the nonglycosylated Thr10 contulakin-G analog. The binding affinities of contulakin-G and the nonglycosylated Thr10 contulakin-G for a number of neurotensin receptor types including the human neurotensin type 1 receptor (HNTR1), the rat neurotensin type 1 and type 2 receptors, and the mouse neurotensin type 3 receptor were determined The binding affinity of the non glycosylated Thr10 contulakin-G was approx. an order of magnitude lower than that of neurotensin1-13 for all the receptor types tested. In contrast, the glycosylated form of contulakin-G exhibited significantly weaker binding affinity for all of the receptors tested. However, both contulakin-G and nonglycosylated Thr10 contulakin-G were found to be potent agonists of rat neurotensin receptor type 1. Based on these results, the authors conclude that O-linked glycosylation appears to be a highly unusual strategy for increasing the efficacy of toxins directed against neurotransmitter receptors.
IT **228403-92-7**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
IT **229180-41-0P**, Contulakin G **229180-42-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
IT **228403-92-7**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
RN 228403-92-7 HCAPLUS
CN Contulakin-G (Conus geographus venom precursor) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LILGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Araki, K	1973	21	2801	Chem Pharm Bull (Tok	HCAPLUS
Baenziger, J	1994	8	1019	FASEB J	HCAPLUS

Barber, M	1982	54	645	Anal Chem	
Carraway, R	1973	248	6854	J Biol Chem	HCAPLUS
Chabry, J	1994	63	19	J Neurochem	HCAPLUS
Colledge, C	1992	30	1111	Toxicon	HCAPLUS
Cotter, R	1989	18	513	Biomed Mass Spectrom	MEDLINE
Craig, A	1998	37	16019	Biochemistry	HCAPLUS
Craig, A	1993	22	31	Biol Mass Spectrom	HCAPLUS
Craig, A	1994	23	519	Biol Mass Spectrom	HCAPLUS
Craig, A	1997	272	4689	J Biol Chem	HCAPLUS
Cruz, L	1985	260	9280	J Biol Chem	HCAPLUS
Cruz, L	1987	262	15821	J Biol Chem	HCAPLUS
Cusack, B	1991	206	339	Eur J Pharmacol	HCAPLUS
Cusack, B	1993	13	123	J Recept Res	HCAPLUS
Feurle, G	1992	267	22305	J Biol Chem	HCAPLUS
Fischer, W	1987	84	3628	Proc Natl Acad Sci U	HCAPLUS
Gray, W	1981	256	4734	J Biol Chem	HCAPLUS
Haack, J	1990	265	6025	J Biol Chem	HCAPLUS
Hillenkamp, F	1993	63	1193	Anal Chem	
Jimenez, E	1997	36	989	Biochemistry	HCAPLUS
Jimenez, E	1996	271	28002	J Biol Chem	HCAPLUS
Lenguyen, D	1986	27	285	Int J Pept Protein R	MEDLINE
Loughnan, M	1998	273	15667	J Biol Chem	HCAPLUS
Luning, B	1989	6	5	Glycoconj J	MEDLINE
Mazella, J	1988	263	144	J Biol Chem	HCAPLUS
McIntosh, J	1984	259	14343	J Biol Chem	HCAPLUS
McIntosh, M	1982	218	329	Arch Biochem Biophys	HCAPLUS
McLuckey, S	1991	63	375	Anal Chem	HCAPLUS
Minamino, N	1984	122	542	Biochem Biophys Res	HCAPLUS
Monje, V	1993	32	1141	Neuropharmacolgy	HCAPLUS
Munson, P	1980	107	220	Anal Biochem	HCAPLUS
Norberg, T	1994	247	87	Methods in Enzymolog	HCAPLUS
Olivera, B	1984	23	5087	Biochemistry	HCAPLUS
Olivera, B	1991	266	22067	J Biol Chem	HCAPLUS
Olivera, B	1997	8	2101	Mol Biol Cell	HCAPLUS
Olivera, B	1990	249	257	Science	HCAPLUS
Olivera, B	1985	23	277	Toxicon	HCAPLUS
Sadoul, J	1984	120	812	Biochem Biophys Res	HCAPLUS
Spengler, B	1992	6	105	Rapid Commun Mass Sp	HCAPLUS
Stewart, J	1984		176	Solid Phase Peptide	
Tanaka, K	1990	4	847	Neuron	HCAPLUS
Terlau, H	1996	381	148	Nature	HCAPLUS
Tyler, B	1998	792	246	Brain Res	HCAPLUS
van Renterghem, C	1988	157	977	Biochem Biophys Res	HCAPLUS
Yoshida, H	1976	15	61	Biochemistry	HCAPLUS

L21 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:494558 HCAPLUS
DN 123:50449
TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals
IN Olivera, Baldomero M.; Rivier, Jean E. F.; Cruz, Lourdes J.; Abogadie, Fe; Hopkins, Chris E.; Dykert, John; Torres, Josep L.
PA **Salk Institute** for Biological Studies, USA; University of **Utah Research Foundation**
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9501436	A1	19950112	1994WO-US07194	19940627
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US---5432155	A	19950711	1993US-0084848	19930629
	CA---2165566	AA	19950112	1994CA-2165566	19940627

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	AT----248222	E	20030915	1994AT-0920316	19940627
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	1994CA-2165566	A3	19940627		
	1994EP-0920316	A3	19940627		
	1994WO-US07194	W	19940627		

OS CASREACT 123:50449; MARPAT 123:50449

AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. The peptides may be used to analyze acetylcholine receptors and in pharmaceuticals (no data). Thirteen different conotoxins containing 16-46 amino acids were prepared by solid phase peptide synthesis and tested for biol. activity.

IT **162717-63-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

IT **162717-63-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

RN 162717-63-7 HCAPLUS

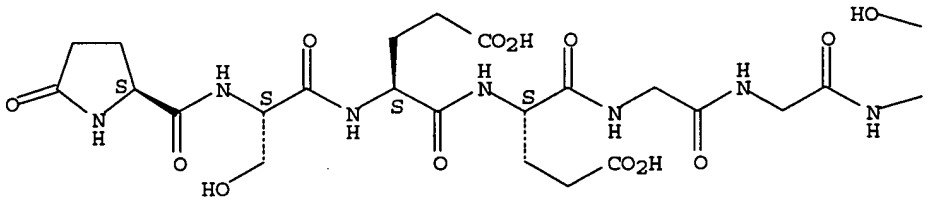
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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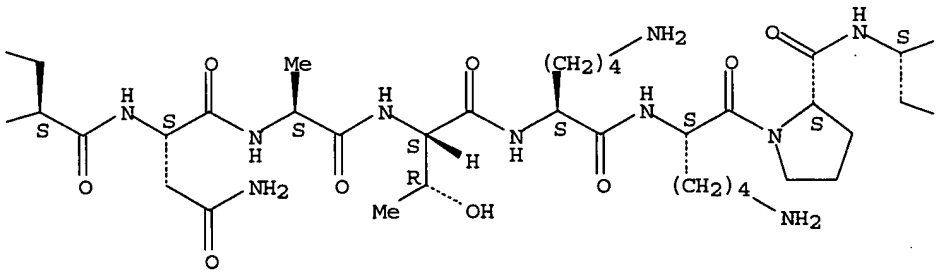

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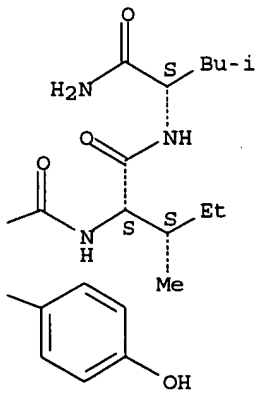


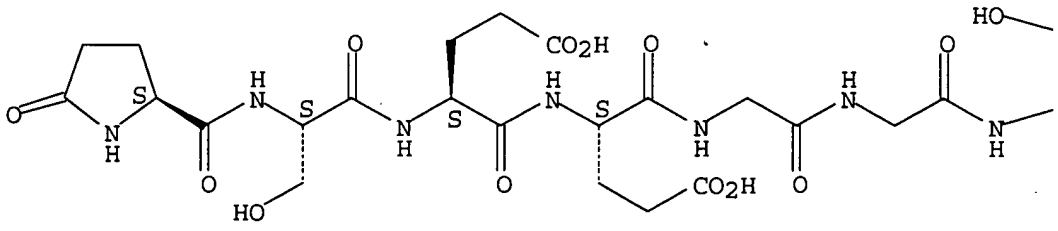
L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 162717-63-7 REGISTRY
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Conotoxin peptide J-004
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16
NTE modified

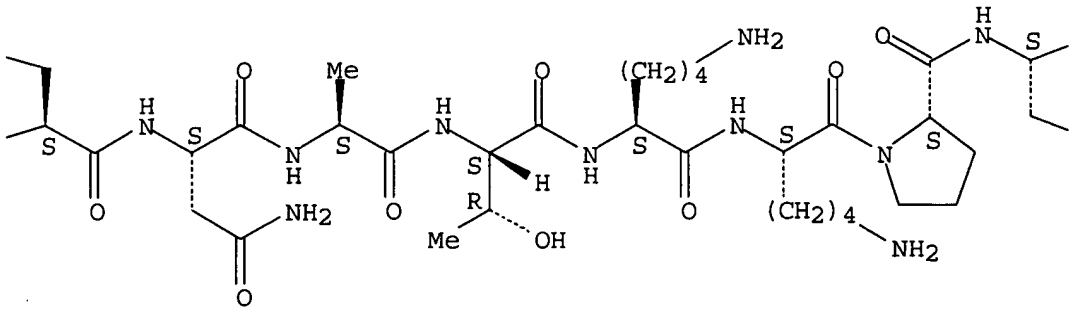
type	------ location ------		description
terminal mod.	Leu-16	-	C-terminal amide
uncommon	Glp-1	-	-

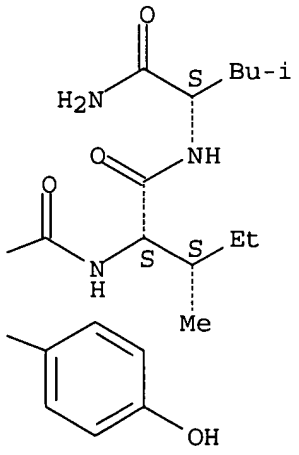
SEQ 1 XSEEGGSNAT KKPYIL

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C74 H118 N20 O26
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.







PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

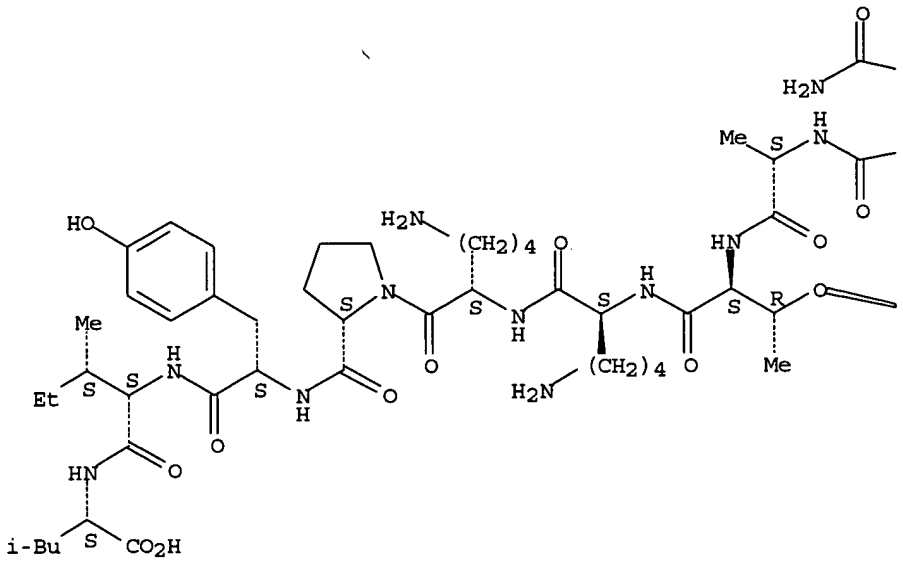
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d bib abs hitseq retable l22 tot

L22 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1321341 HCAPLUS
DN 144:213003
TI Chemical synthesis of analogs of the glycopeptide contulakin-G, an analgetically active conopeptide from Conus geographus
AU Westerlind, Ulrika; Norberg, Thomas
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Carbohydrate Research (2005), Volume Date 2006, 341(1), 9-18
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 144:213003
AB Cone snails are marine predators that use immobilizing venoms for catching prey. Chemical anal. of the venoms has revealed a variety of biol. active small and intermediate size peptides rich in post-translational modifications (modified amino acids, glycosylation). The glycopeptide contulakin-G (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-[β-D-Galp-(1→3)]-α-D-GalpNAc-(1→3)Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH) is a potent analgesic from Conus geographus venom. The in vivo activity of synthetic contulakin-G was previously found to be significantly higher compared to that of a peptide lacking the glycan. In order to further investigate the importance of the glycan, we have now synthesized analogs of contulakin-G where the glycan chain O-linked to threonine has been altered either to β-D-Galp-(1→3)-β-D-GalpNAc-, α-D-Galp-(1→3)-α-D-GalpNAc-, or β-D-Galp-(1→6)-α-D-GalpNAc-. The glycopeptides were assembled on a Wang resin using com. available Fmoc (Fmoc = 9-fluorenylmethoxycarbonyl) amino acids and synthetically prepared Fmoc-protected threonine derivs. carrying O-acetyl protected sugar chains. The final products were thoroughly characterized by NMR and mass spectroscopy.
IT **875484-91-6P 875484-93-8P 875484-95-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of analogs of glycopeptide contulakin-G from Conus geographus venom as potent analgesics by galactosylation of threonine and solid phase peptide synthesis)
RN 875484-91-6 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[4,6-di-O-acetyl-2-(acetylamino)-2-deoxy-3-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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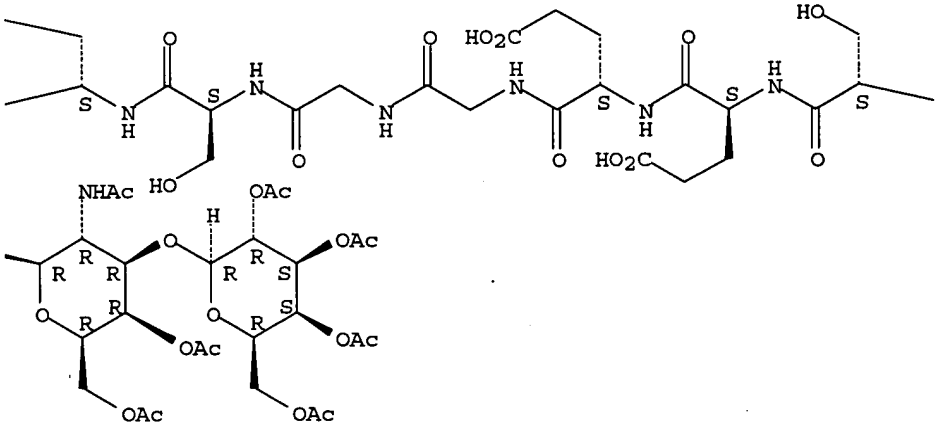

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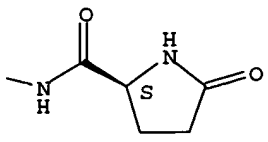
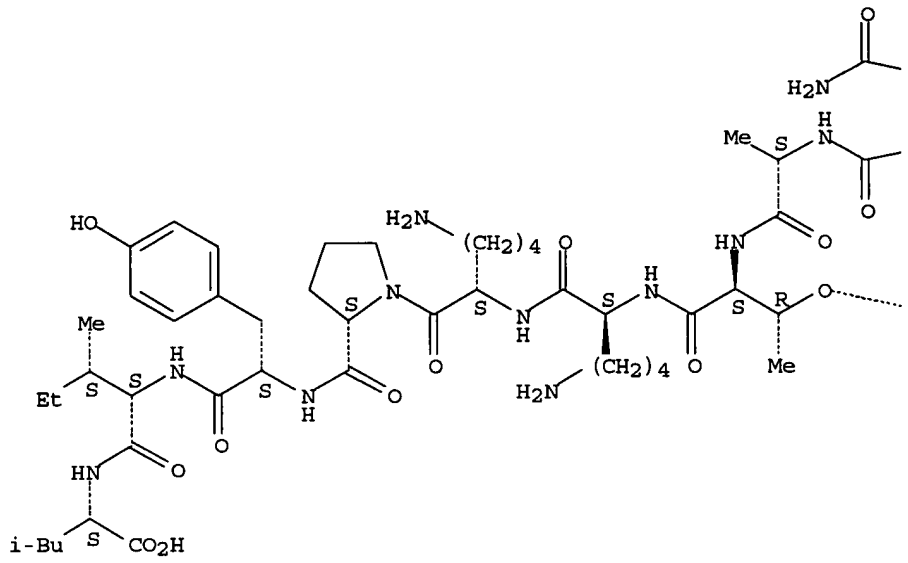


RN 875484-93-8 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[4,6-di-O-acetyl-2-(acetylamino)-2-deoxy-3-O-(2,3,4,6-tetra-O-acetyl-α-D-galactopyranosyl)-α-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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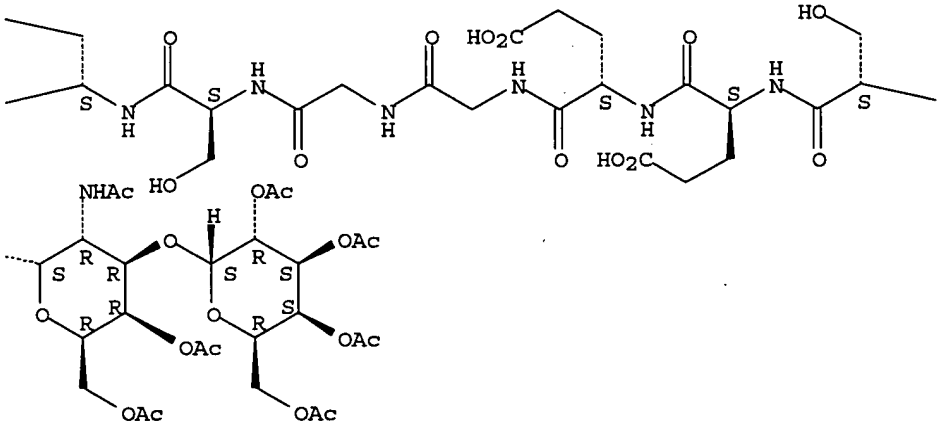

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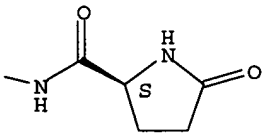
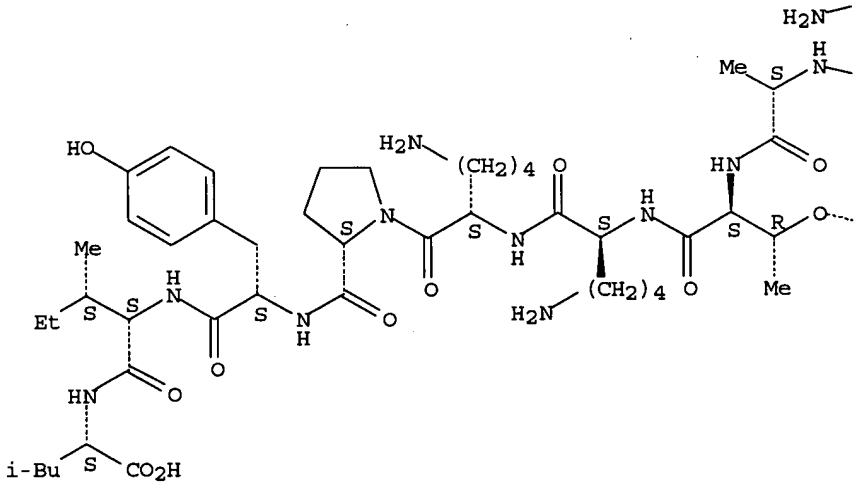


RN 875484-95-0 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[3,4-di-O-acetyl-2-(acetylamino)-2-deoxy-6-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-α-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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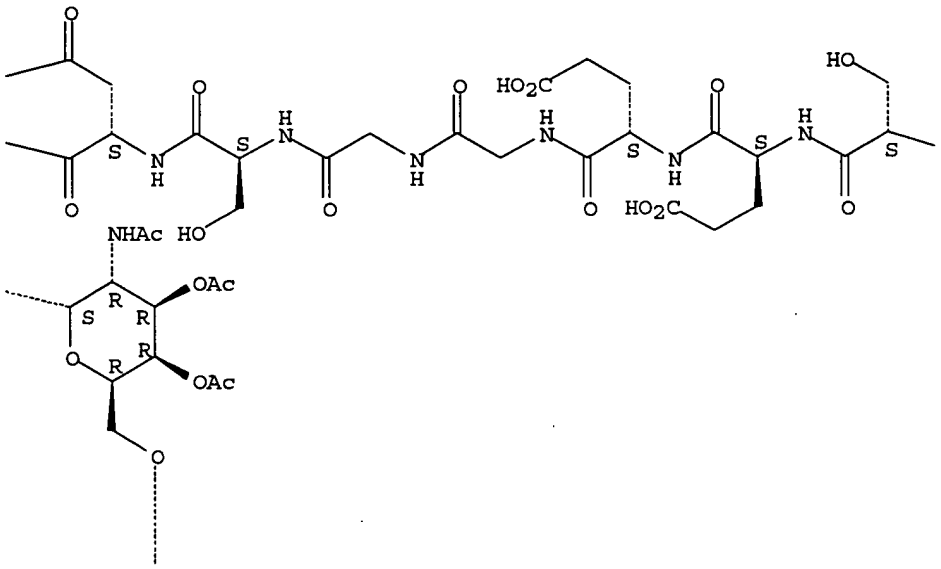

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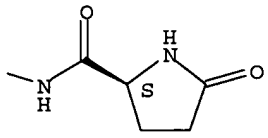

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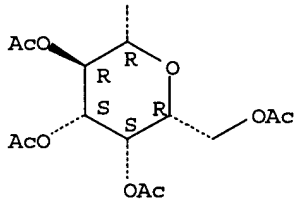


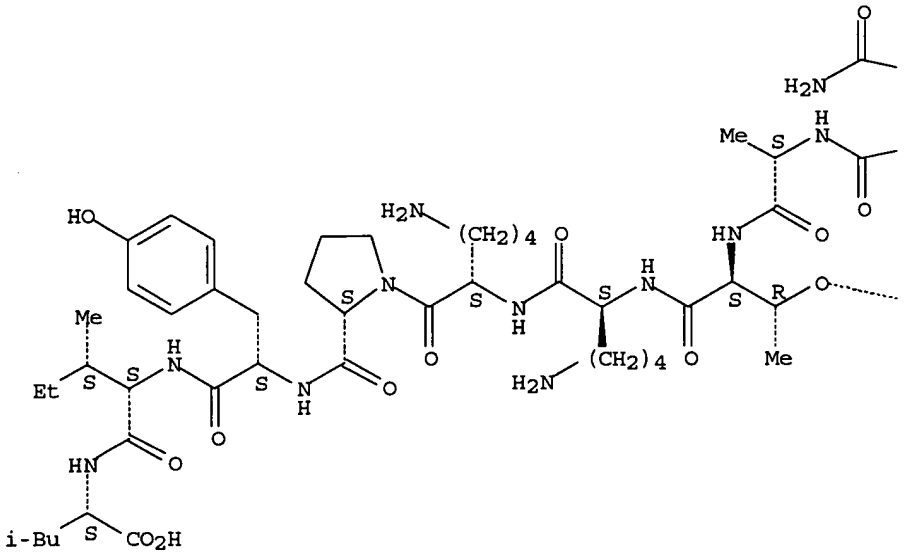
IT **229180-41-0DP**, Contulakin G, analogs **875484-92-7P**
875484-94-9P 875484-96-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of analogs of glycopeptide contulakin-G from Conus geographus venom as potent analgesics by galactosylation of threonine and solid phase peptide synthesis)
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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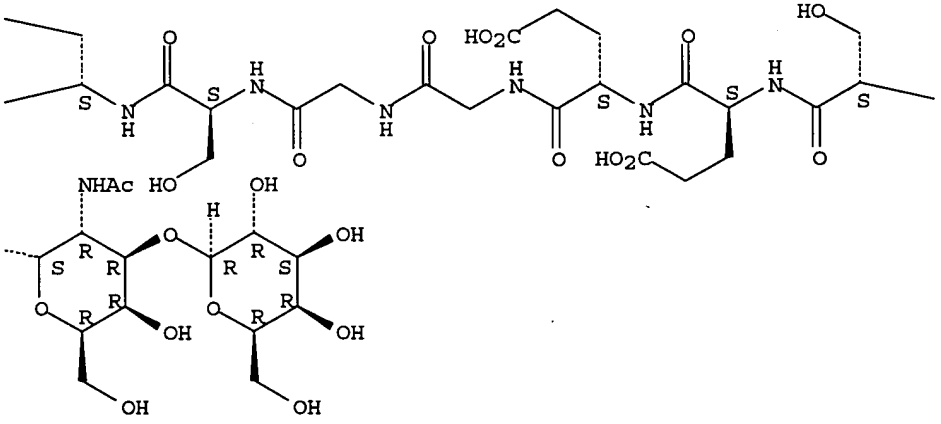

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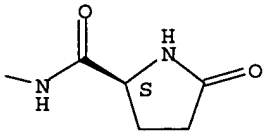


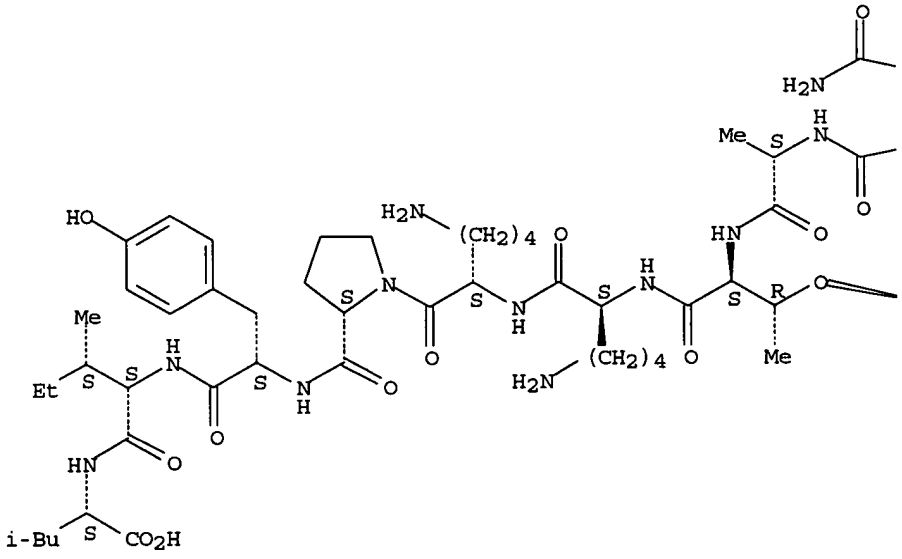
RN 875484-92-7 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[2-(acetylamino)-2-deoxy-3-O-β-D-galactopyranosyl-β-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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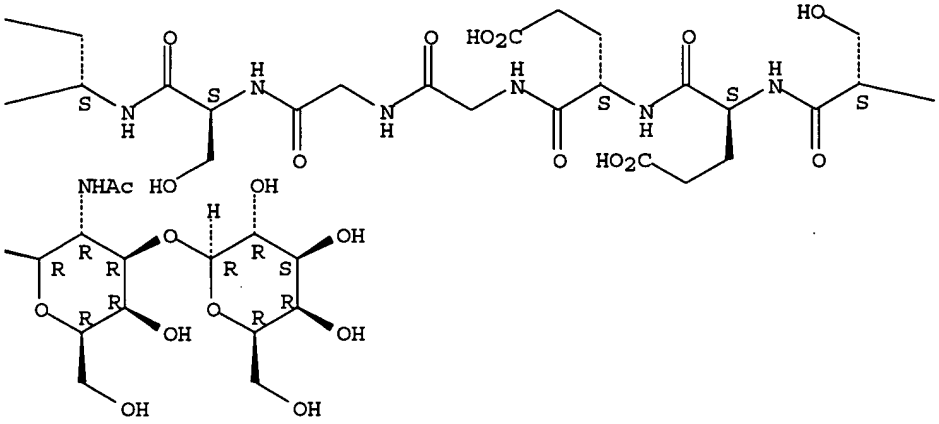

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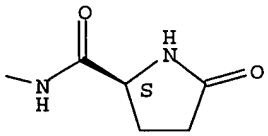

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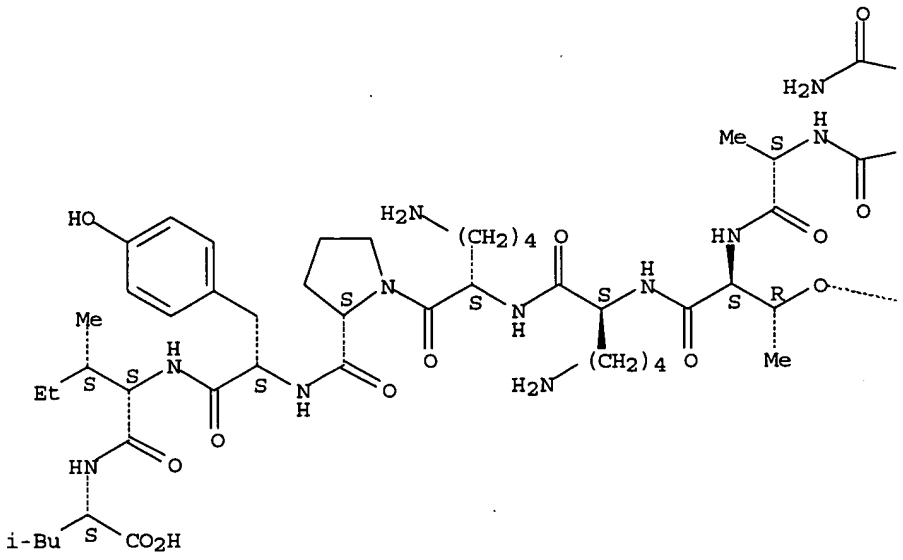
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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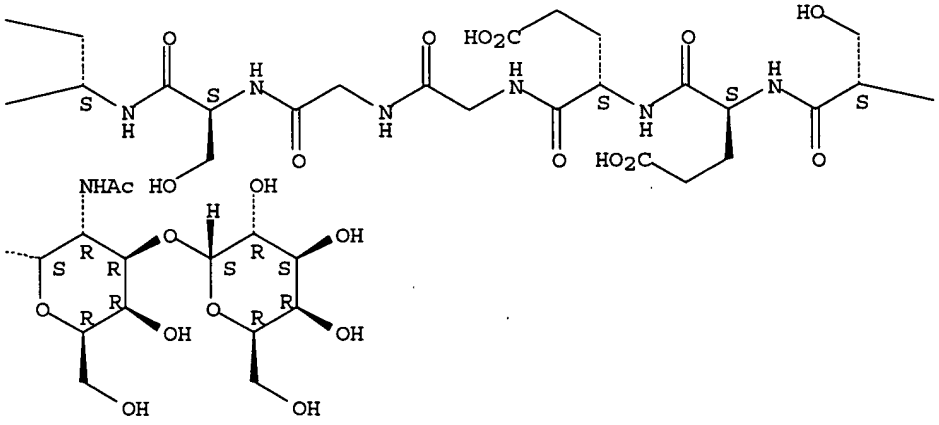

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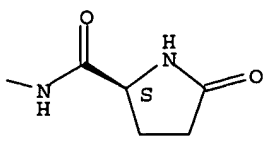

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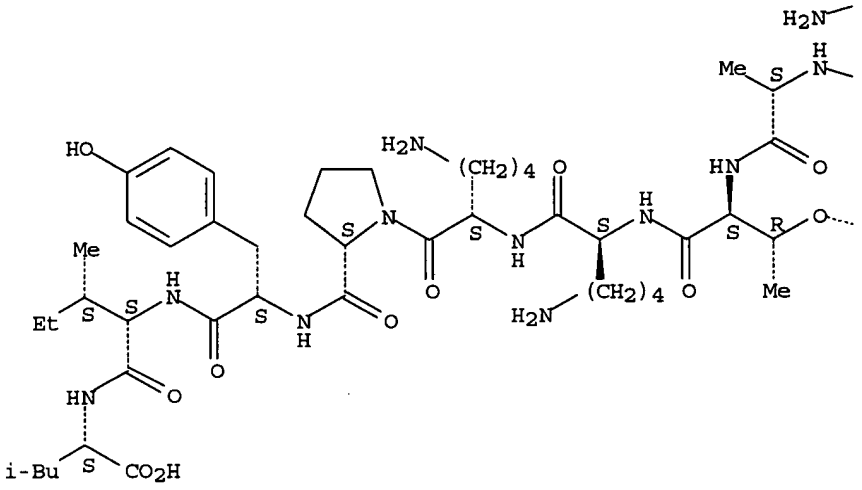
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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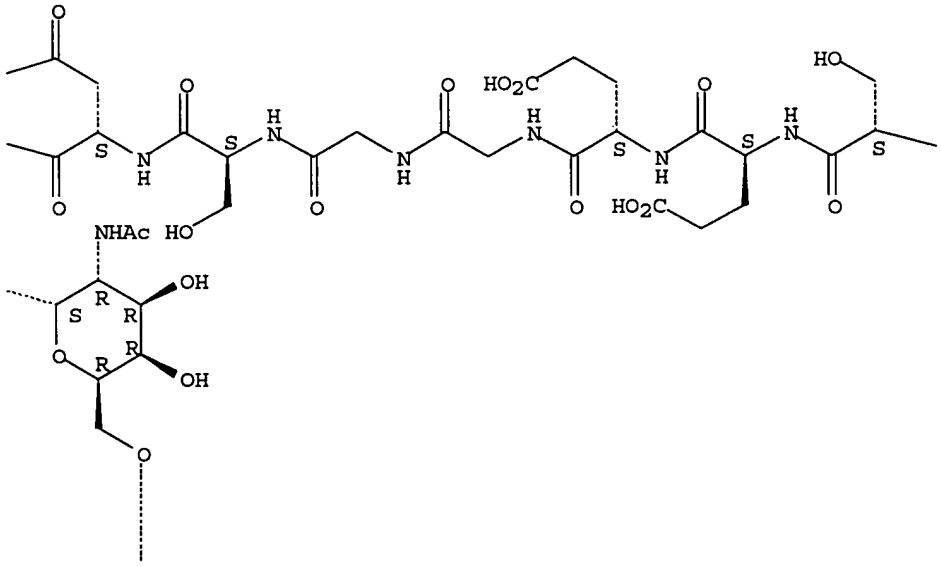

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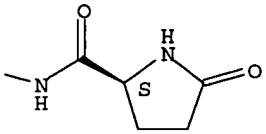

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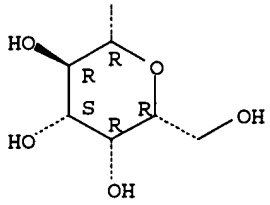


RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Andersson, L	2000		459	J Chem Soc, Perkin T	HCAPLUS
Anon				Unpublished results	
Corthay, A	1998	28	2580	Eur J Immunol	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Delorme, E	1992	31	9871	Biochemistry	HCAPLUS
Fugedi, P	1986	149	C9	Carbohydr Res	HCAPLUS
Garegg, P	1980	83	157	Carbohydr Res	
Higuchi, M	1992	267	7703	J Biol Chem	HCAPLUS
Kaiser, E	1970	34	595	Anal Biochem	HCAPLUS
Kindahl, L	2002	80	1022	Can J Chem	HCAPLUS
Lemieux, R	1963	2	221	Methods in Carbohydr	
Luning, B	1989	6	5	Glycoconjug J	MEDLINE
Moore, J	1970	11	4423	Tetrahedron Lett	
Narhi, L	1991	266	23022	J Biol Chem	HCAPLUS
Olivera, B	1990	249	257	Science	HCAPLUS
Wagstaff, J				in preparation	

L22 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:354661 HCAPLUS
DN 143:65241
TI 1H NMR studies on the solution conformation of the [L-ser10] and [D-ser10] analogs of contulakin-G
AU Kindahl, Lill; Kenne, Lennart; Sandstroem, Corine
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Canadian Journal of Chemistry (2005), 83(2), 156-165
CODEN: CJCHAG; ISSN: 0008-4042
PB National Research Council of Canada
DT Journal
LA English
AB The synthesis of the O-glycosylated serine-10 analog of contulakin-G yielded both the [L-] and the [D-Ser10] analogs. The 1H NMR study indicated that the sugars of the two Ser10-glycosylated peptides lacked the hydrogen bond to the peptide backbone that exists in contulakin-G. NOEs showed that the glycan part of the [D-Ser10] analog had a different

orientation to the peptide backbone than that of the [L-Ser10] analog. The peptide backbones in the two compds. were found to exist mainly in random coil conformations, with transient turns at the site of glycosylation. A transient turn was also found at the C-terminus of the [D-Ser10] glycopeptide. The NMR data indicated that the average conformation of the [D-Ser10] analog resembles the conformation of contulakin-G more than the [L-Ser] does. Since biol. data showed that the [D-Ser10] glycopeptide was as active as contulakin-G, while the [L-Ser10] glycopeptide was only slightly active at more than 100 times the dose, it is possible that it is the orientation of the glycan relative to the peptide chain that is actually recognized by the proteolytic enzyme.

IT **229180-41-0**, Contulakin G **229180-42-1**
478921-16-3 478921-22-1
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NMR studies on solution conformation of contulakin-G and its analogs)

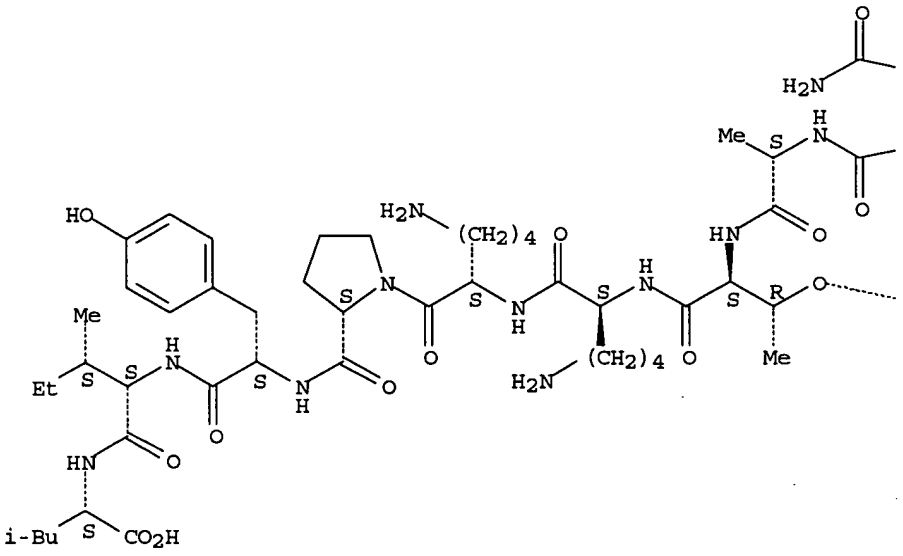
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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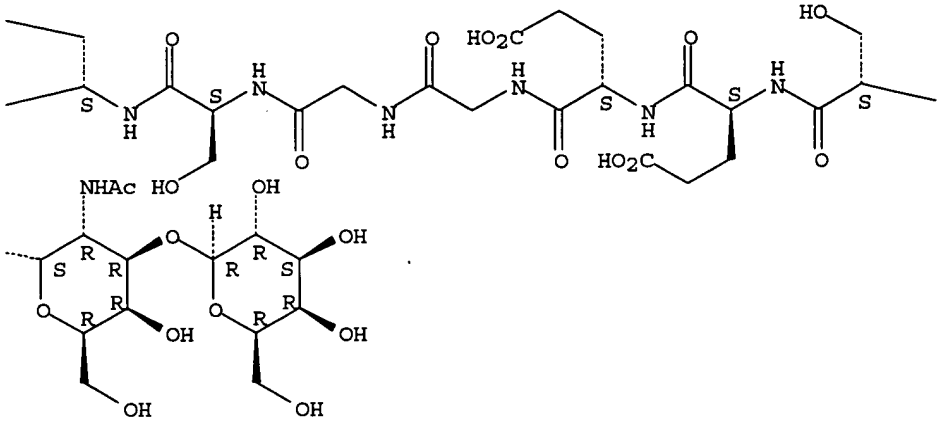

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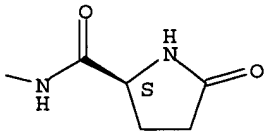
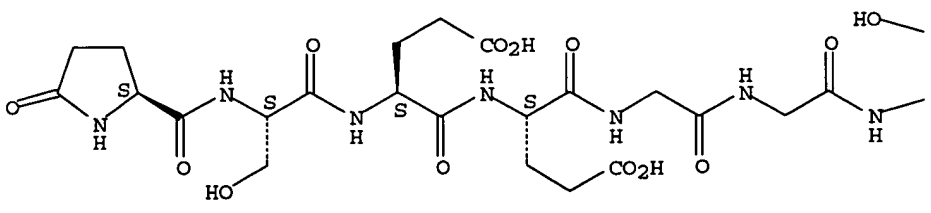


RN 229180-42-1 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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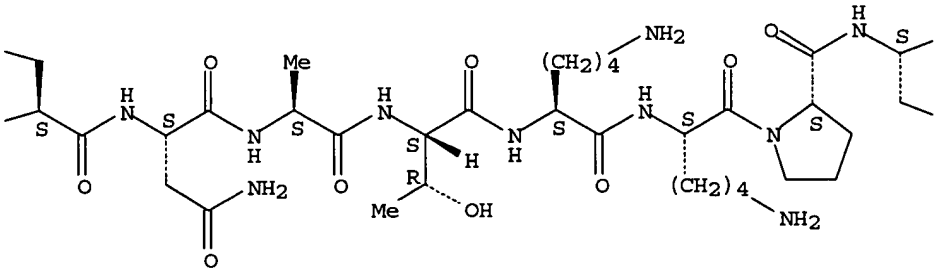

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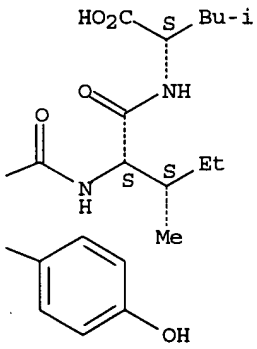

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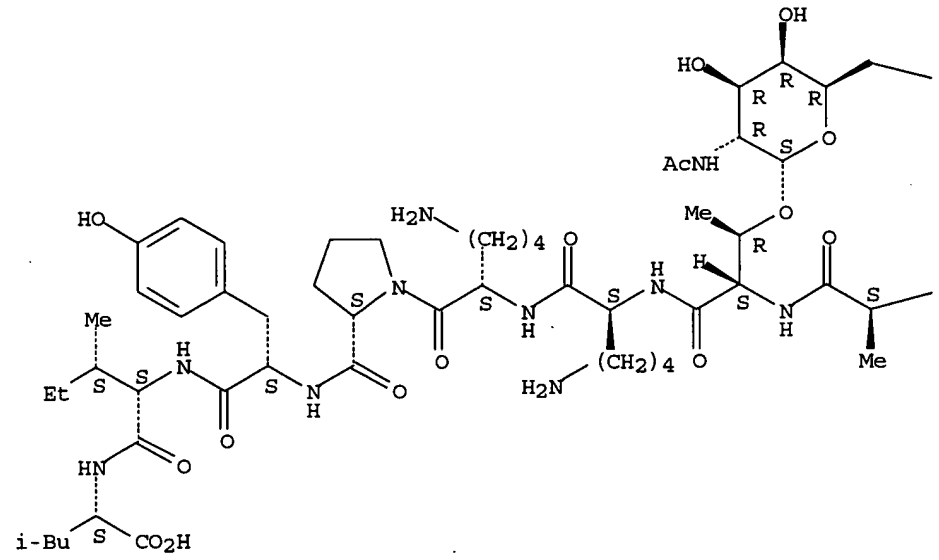
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[2-(acetylamino)-2-deoxy-α-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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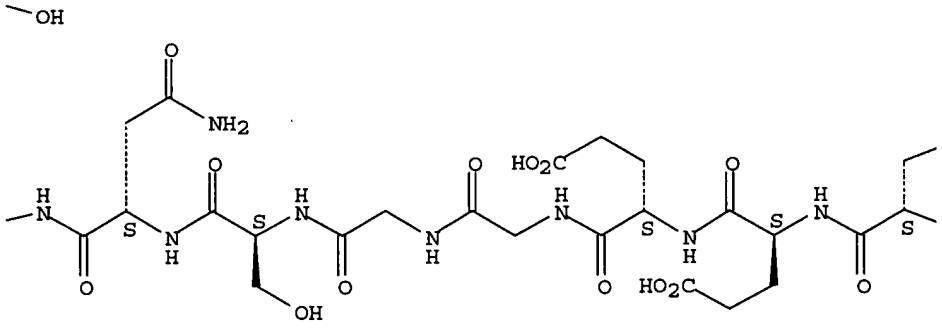

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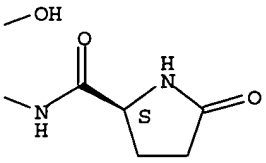


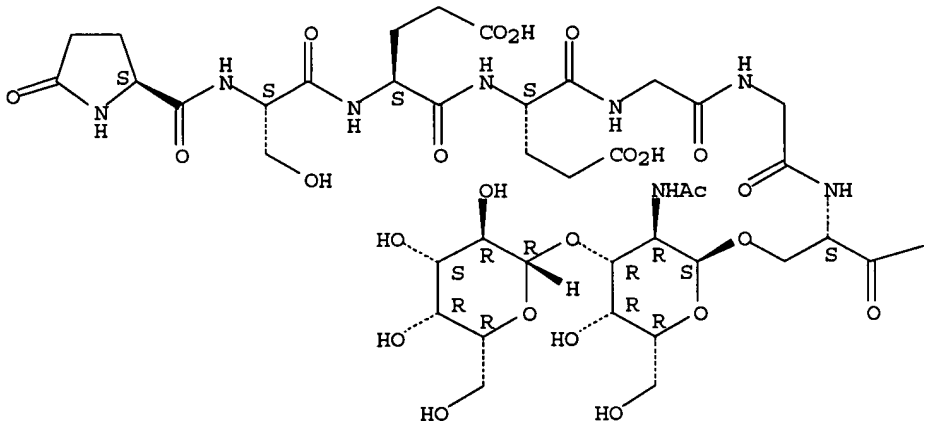
RN 478921-22-1 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-O-[2-(acetylamino)-2-deoxy-3-O-β-D-galactopyranosyl-α-D-galactopyranosyl]-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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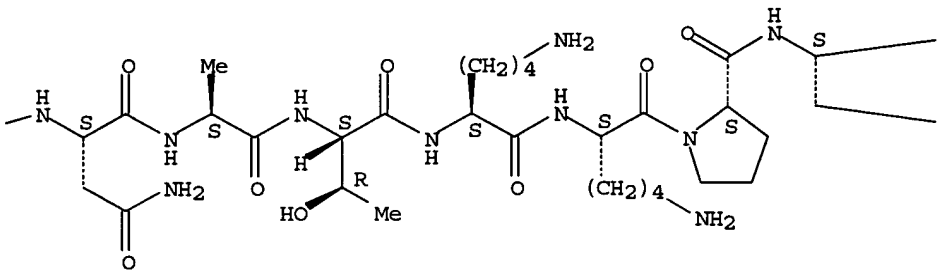

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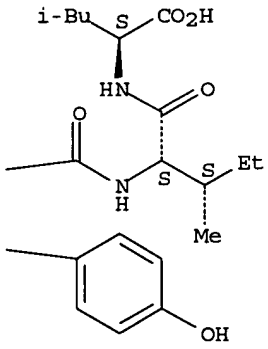

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Grinstead, J	2002	41	9946	Biochemistry	HCAPLUS
Huang, X	1997	36	10846	Biochemistry	HCAPLUS
Hylden, J	1980	67	313	Eur J Pharmacol	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Kindahl, L	2002	80	1022	Can J Chem	HCAPLUS
Kirnarsky, L	2000	39	12076	Biochemistry	HCAPLUS
Marion, D	1983	113	967	Biochem Biophys Res	HCAPLUS
Naganagowda, G	1999	54	290	J Pept Res	HCAPLUS
Nieto, J	1986	28	315	Int J Pept Protein R	HCAPLUS
Piotto, M	1992	2	661	J Biomol NMR	HCAPLUS
Strom, K	2002	68	4322	J Appl Environ Micro	HCAPLUS
Wagstaff, J	1999	25	1944	Proc 29th Annu Meet	
Wishart, D	1992	31	1647	Biochemistry	HCAPLUS
Wishart, D	1995	5	67	J Biomol NMR	HCAPLUS
Xu, G	1991	37	528	Int J Pept Protein R	HCAPLUS

L22 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:790631 HCAPLUS
DN 138:34508
TI 1H NMR studies on the solution conformation of contulakin-G and analogues
AU Kindahl, Lill; Sandstrom, Corine; Craig, A. Grey; Norberg, Thomas; Kenne,

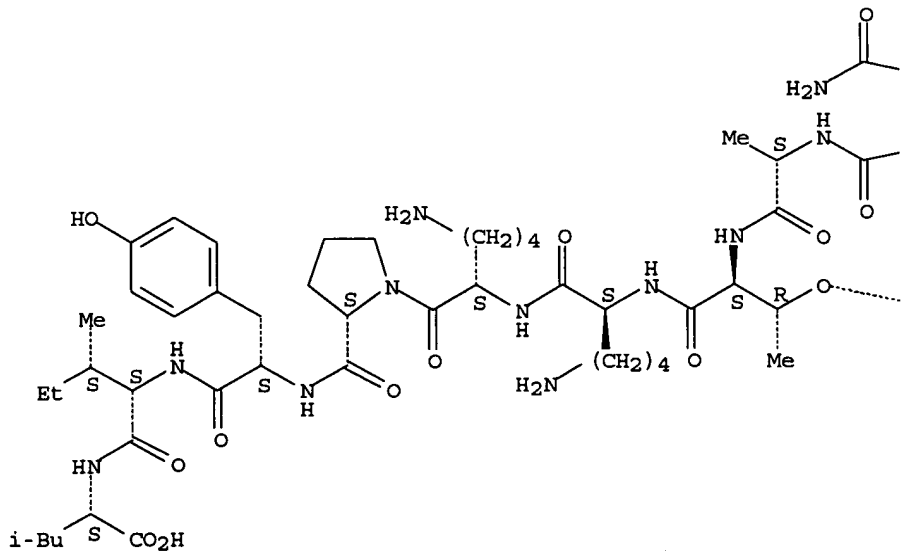
Lennart
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Canadian Journal of Chemistry (2002), 80(8), 1022-1031
CODEN: CJCHAG; ISSN: 0008-4042
PB National Research Council of Canada
DT Journal
LA English
AB The conformation of contulakin-G, a bioactive 16 amino acid O-linked glycopeptide (ZSEEGGSNAT*KKPYIL) with the disaccharide β-D-Gal(1→3)α-D-GalNAc attached to the threonine residue in position 10, has been investigated by 1H NMR spectroscopy. The 1H-NMR data for the non-glycosylated peptide and for two glycopeptide analogs, one with the monosaccharide α-D-GalNAc at Thr10 and one with the disaccharide β-D-Gal(1→3)α-D-GalNAc at Ser7, all of lower bioactivity than contulakin-G, have also been collected. The chemical shifts, NOEs, temperature coeffs. of amide protons, and 3JNH,αH-values suggest that all four compds. exist mainly in random coil conformations. Some transient populations of folded conformations are also present in the glycopeptides and turns, probably induced by the sugars, are present in the peptide chain around the site of glycosylation. In the two peptides O-glycosylated at Thr10, the rotation of α-D-GalNAc around the linkage between the sugar and the peptide is restricted. There is evidence for a hydrogen bond between the amide proton of α-D-GalNAc and the peptide chain that could contribute to this torsional rigidity. An intramol. hydrogen bond between the carbohydrate and the peptide chain does not exist in the peptide O-glycosylated at the Ser7 residue.
IT **229180-41-0**, Contulakin G **229180-41-0D**, Contulakin-G, analogs **229180-42-1 478921-16-3 478921-22-1**
RL: PRP (Properties)
(1H-NMR studies on solution conformation of contulakin-G and analogs)
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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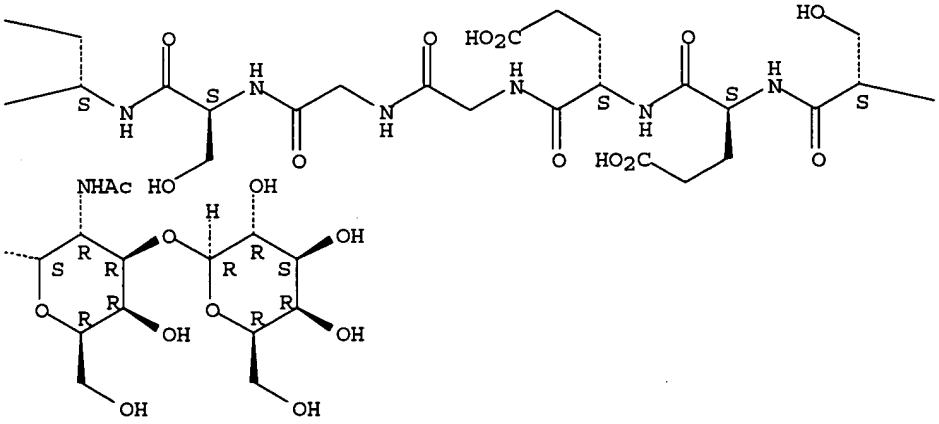

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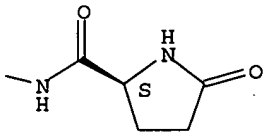


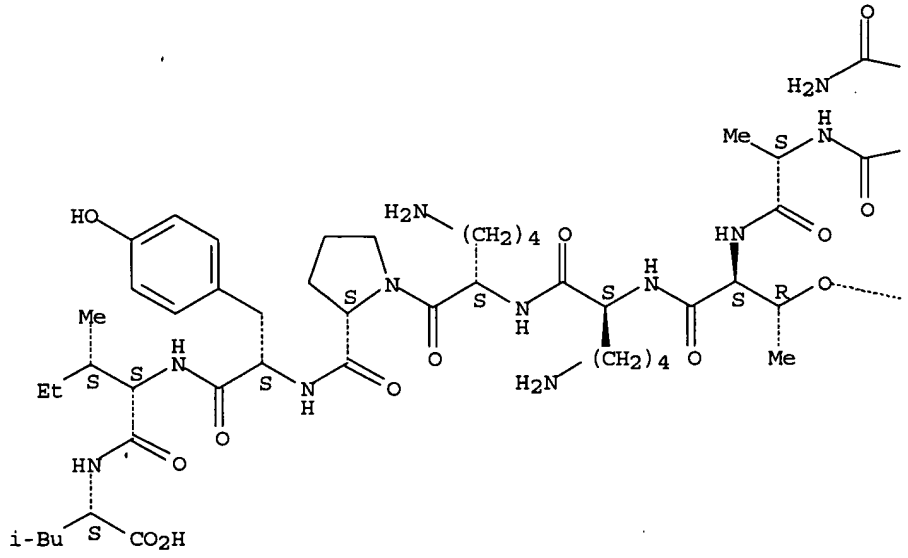
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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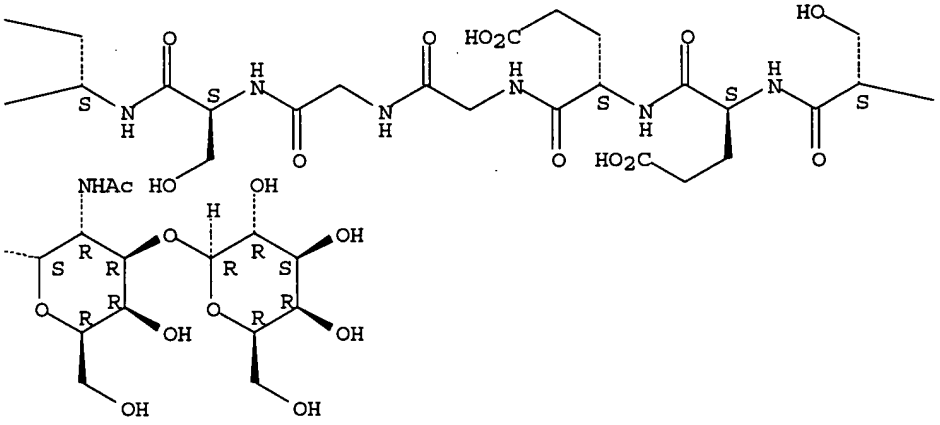

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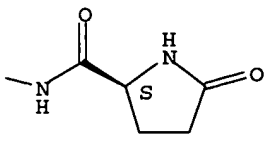
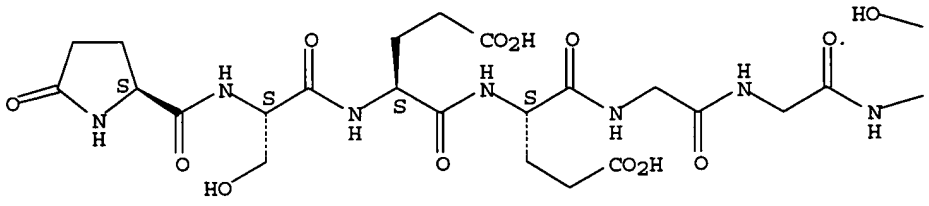


RN 229180-42-1 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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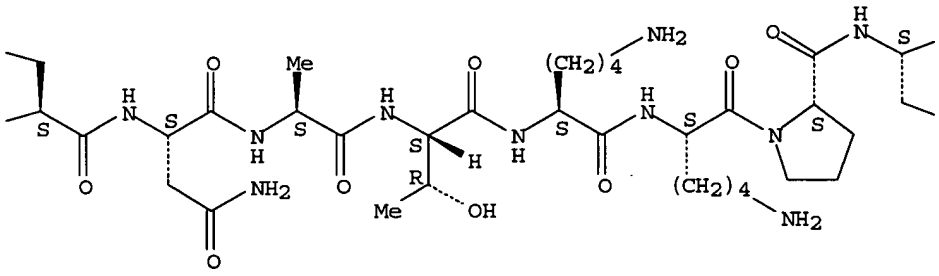

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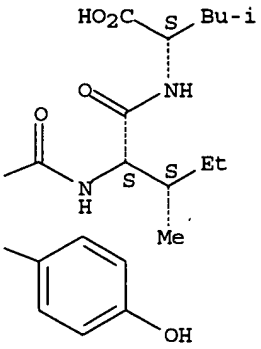

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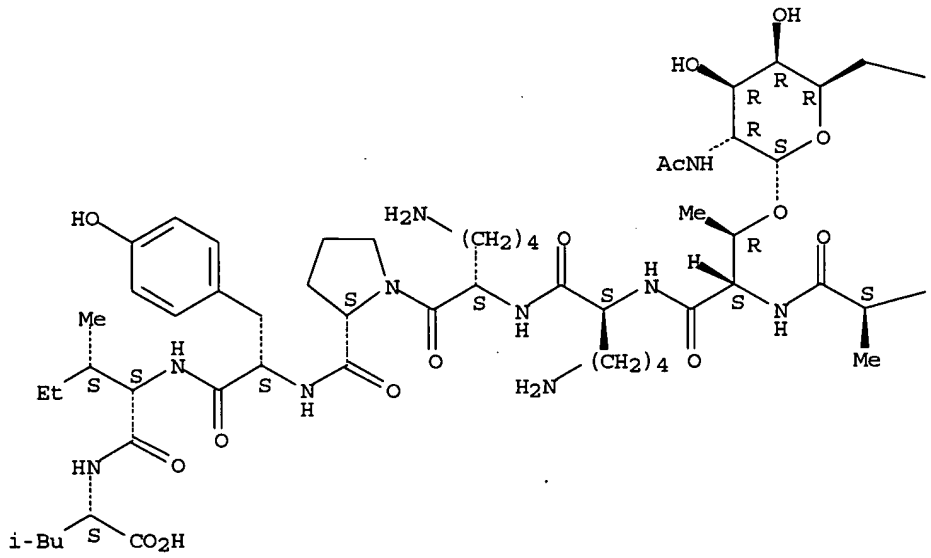
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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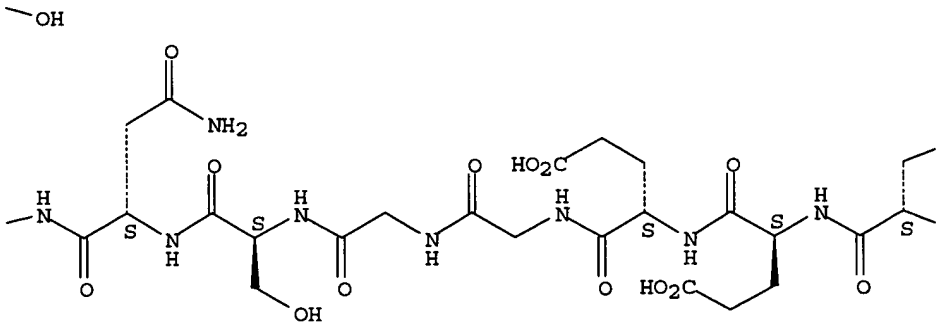

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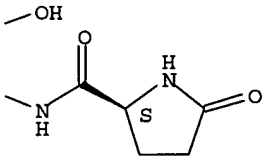

RN 478921-22-1 HCAPLUS
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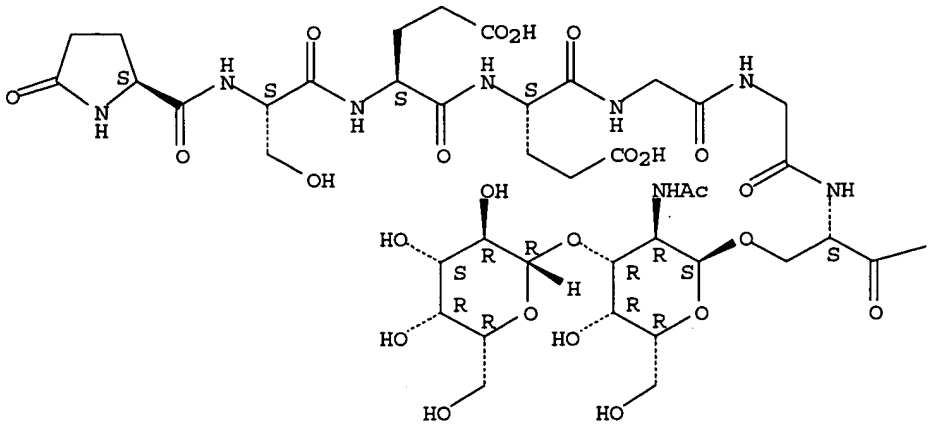
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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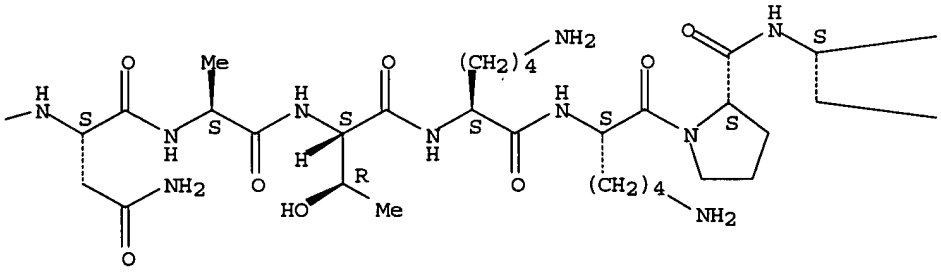

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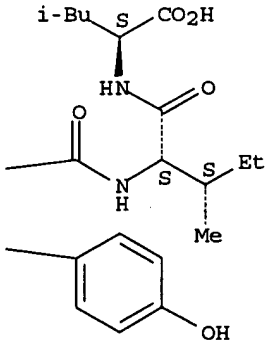

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Andreotti, A	1993	115	3352	J Am Chem Soc	HCAPLUS
Buck, M	1998	31	297	Q Rev Biophys	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Craig, A				Manuscript in prepar	
Dyson, H	1991	20	519	Annu Rev Biophys Che	HCAPLUS
Dyson, H	1988	201	161	J Mol Biol	HCAPLUS
Huang, X	1997	36	10846	Biochemistry	HCAPLUS
Huang, X	1996	393	280	FEBS Lett	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Kirnarsky, L	2001	39	12076	Biochemistry	
Liang, R	1995	117	10395	J Am Chem Soc	HCAPLUS
Live, D	1996	93	12759	Proc Natl Acad Sci U	HCAPLUS
Maeji, N	1987	29	699	Int J Peptide Res	HCAPLUS
Marion, D	1983	113	967	Biochem Biophys Res	HCAPLUS
McManus, A	1999	38	705	Biochemistry	HCAPLUS
Merutka, G	1995	5	14	J Biomol NMR	HCAPLUS
Mimura, Y	1992	14	242	Int J Biol Macromol	HCAPLUS
Naganagowda, G	1999	54	290	J Peptide Res	HCAPLUS
O'Connor, S	1998	5	427	Chem Biol	HCAPLUS
Piotto, M	1992	2	661	J Biomol NMR	HCAPLUS
Polt, R	2001	26	561	Drugs of the Future	HCAPLUS
Rickert, K	1995	2	751	Chem Biol	HCAPLUS
Wagstaff, J	1999	25	1944	Proceedings of the 2	
Wuthrich, K	1986		169	NMR of proteins and	
Zimmermann, G	1995	34	13663	Biochemistry	HCAPLUS

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FILE 'USPAT2' ENTERED AT 11:22:01 ON 27 OCT 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitrn fhitstr l14 2-6 8

L14 ANSWER 2 OF 10 USPATFULL on STN
AN 2005:234064 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, UNITED STATES
Griffin, David, Greenville, NC, UNITED STATES
Olivera, Baldomero M., Salt Lake City, UT, UNITED STATES
Watkins, Maren, Salt Lake City, UT, UNITED STATES
Hillyard, David R., Salt Lake City, UT, UNITED STATES
Imperial, Julita, Salt Lake City, UT, UNITED STATES
Cruz, Lourdes J., Manila, PHILIPPINES
Wagstaff, John D., Salt Lake City, UT, UNITED STATES
Layer, Richard T., Sandy, UT, UNITED STATES
Jones, Robert M., Salt Lake City, UT, UNITED STATES
McCabe, R. Tyler, Salt Lake City, UT, UNITED STATES
PA University of Utah Research Foundation, Salt Lake City, UT, UNITED STATES (U.S. corporation)
Cognetix, Inc., Salt Lake City, UT, UNITED STATES (U.S. corporation)
The Salk Institute for Biological Studies, La Jolla, CA, UNITED STATES (U.S. corporation)
PI US2005203003 A1 20050915
AI 2002US-0067857 A1 20020208 (10)
RLI Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, GRANTED, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K STREET, N.W., SUITE 800,

WASHINGTON, DC, 20005, US
CLMN Number of Claims: 48
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 2267
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 3 OF 10 USPATFULL on STN
AN 2004:95304 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Wagstaff, John D., Salt Lake City, UT, UNITED STATES
Layer, Richard T., Sandy, UT, UNITED STATES
McCabe, R. Tyler, Salt Lake City, UT, UNITED STATES
PA Cognetix, Inc., Salt Lake City, UT, UNITED STATES, 84108 (U.S. corporation)
PI US2004072758 A1 20040415
AI 2003US-0695516 A1 20031029 (10)
RLI Continuation of Ser. No. 2002US-0067857, filed on 8 Feb 2002, PENDING
Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, GRANTED, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K STREET, N.W., SUITE 800, WASHINGTON, DC, 20005
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 2214
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone

encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 4 OF 10 USPATFULL on STN
AN 2004:46784 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Manila, PHILIPPINES
Wagstaff, John D., Satl Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6696408 B1 20040224
AI 2000US-0606247 20000629 (9)
RLI Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1999US-130661P 19990423 (60)
1999US-128561P 19990409 (60)
1998US-105015P 19981020 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Eyler, Yvonne; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2131
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide.

The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 5 OF 10 USPATFULL on STN
AN 2003:53789 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Wagstaff, John D., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6525021 B1 20030225
AI 2000US-0609534 20000630 (9)
RLI Continuation-in-part of Ser. No. 2000US-0606247, filed on 29 Jun 2000
Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Romeo, David S.; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg Ernst & Manbeck, p.c.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2199
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **499802-77-6**, Contulakin-G (Conus geographus venom)
(amino acid sequence; contulakin-G, analogs and uses therefor)
IT **229180-41-0**, Contulakin G **499802-79-8**
(contulakin-G, analogs and uses therefor)
IT **499805-87-7 499805-89-9**
(unclaimed protein sequence; contulakin-G, analogs thereof and uses therefor)
IT **499802-77-6**, Contulakin-G (Conus geographus venom)
(amino acid sequence; contulakin-G, analogs and uses therefor)
RN 499802-77-6 USPATFULL
CN Contulakin-G (Conus geographus venom) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 6 OF 10 USPATFULL on STN
AN 2002:317408 USPATFULL
TI Contulakin-G, analogs thereof and uses thereof
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Manila, PHILIPPINES
Wagstaff, John D., Salt Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6489298 B1 20021203
AI 2000US-0605991 20000629 (9)
RLI Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Romeo, David S.; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck, P.C.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2133
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**

(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 8 OF 10 USPATFULL on STN
AN 2002:24371 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffin, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Wagstaff, John D., Salt Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---6344551 B1 20020205
AI 2000US-0605990 20000629 (9)
RLI Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mertz, Prema; Assistant Examiner: Murphy, Joseph
LREP Rothwell, Figg, Ernst & Manbeck. p.c.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2066
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic

use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

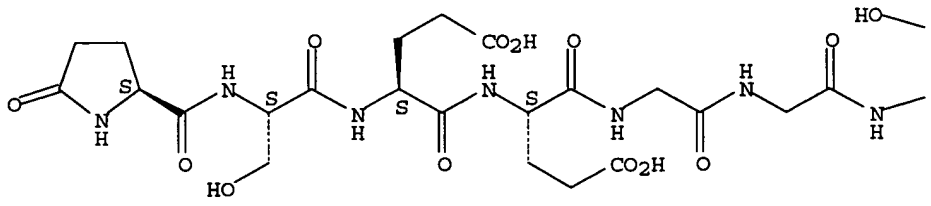
=> d bib abs hitstr l14 1 7 9-10

L14 ANSWER 1 OF 10 USPATFULL on STN
AN 2006:210856 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, UNITED STATES
Rivier, Jean E. F., La Jolla, CA, UNITED STATES
Cruz, Lourdes J., Salt Lake City, UT, UNITED STATES
Abogadie, Fe, Evanston, IL, UNITED STATES
Hopkins, Chris E., Salt Lake City, UT, UNITED STATES
Dykert, John, Vista, CA, UNITED STATES
Torres, Josep L., Barcelona, SPAIN
PA University of Utah Research Foundation, Salt Lake City, UT, UNITED STATES (U.S. corporation)
The Salk Institute for Biological Studies, LaJolla, CA, UNITED STATES (U.S. corporation)
PI US-----39240 E1 20060815
US---5700778 19971223 (Original)
AI 1999US-0469496 19991222 (9)
1995US-0458499 19950602 (Original)
RLI Division of Ser. No. 1993US-0084848, filed on 29 Jun 1993, Pat. No. US---5432155
DT Reissue
FS GRANTED
EXNAM Primary Examiner: Bugaisky, Gabriele
LREP Rothwell Figg Ernst & Manbeck
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1406
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetyl-choline receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be incorporated as plant defense genes into plant species of interest.

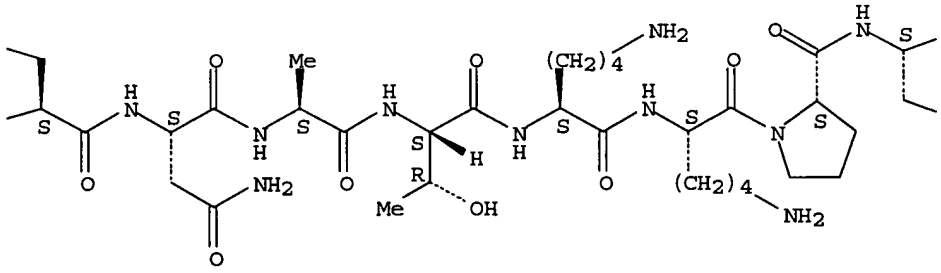
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **162717-63-7P**
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)
RN 162717-63-7 USPATFULL
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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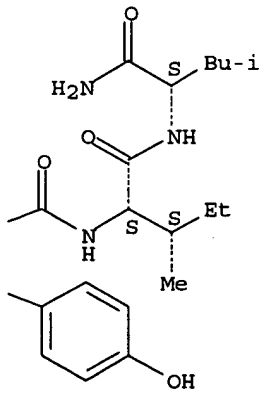


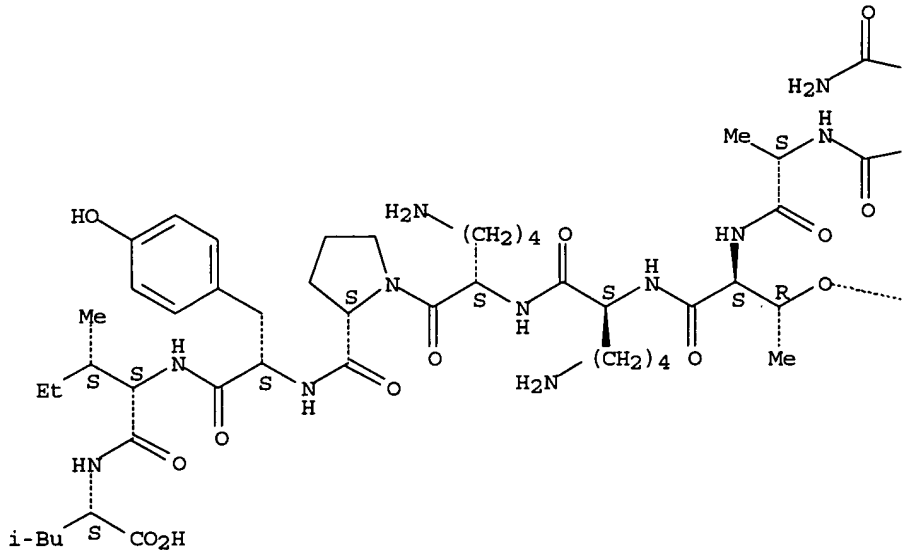
L14 ANSWER 7 OF 10 USPATFULL on STN
AN 2002:75554 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)
PI US---6369193 B1 20020409
AI 1999US-0420797 19991019 (9)
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mertz, Prema; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck, P.C.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
RN 229180-41-0 USPATFULL
CN Contulakin G (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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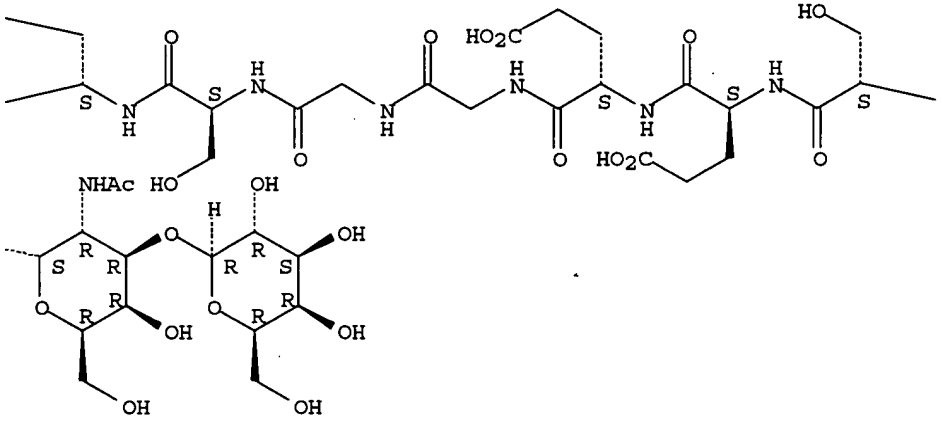

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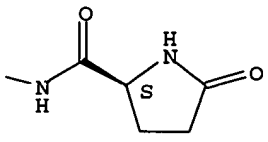
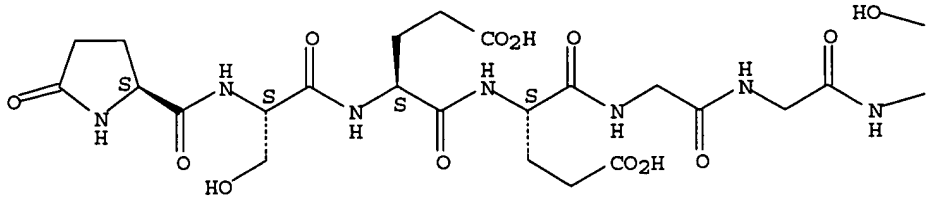


IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
RN 229180-42-1 USPATFULL
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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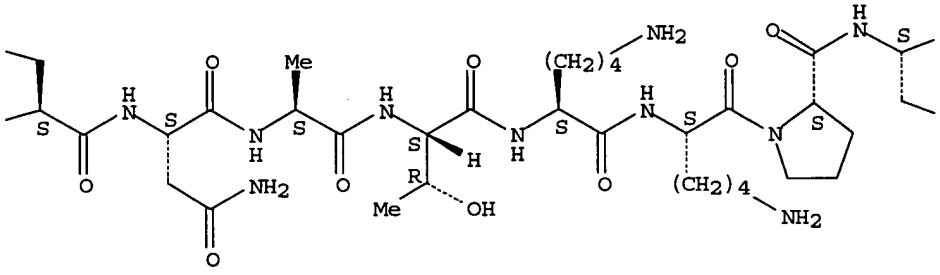

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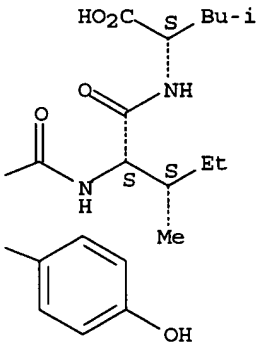


RN 264915-05-1 USPATFULL
CN Peptide, (Xaa-Xaa-Xaa-Xaa-Gly-Gly-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Ile-Leu) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
RN 264915-08-4 USPATFULL
CN 5: PN: WO0023092 SEQID: 7 unclaimed protein (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 9 OF 10 USPATFULL on STN
AN 97:120595 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, United States
Rivier, Jean E.F., La Jolla, CA, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Abogadie, Fe, Evanston, IL, United States
Hopkins, Chris E., Salt Lake City, UT, United States
Dykert, John, Vista, CA, United States
Torres, Josep L., Barcelona, Spain
PA The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)
University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---5700778 19971223
AI 1995US-0458499 19950602 (8)
RLI Division of Ser. No. 1993US-0084848, filed on 29 Jun 1993, now patented, Pat. No. US---5432155
DT Utility
FS Granted
EXNAM Primary Examiner: Tsang, Cecilia J.; Assistant Examiner: Delaney, Patrick R.
LREP Fitch, Even, Tabin & Flannery
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1321
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be

incorporated as plant defense genes into plant species of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **162717-63-7P**

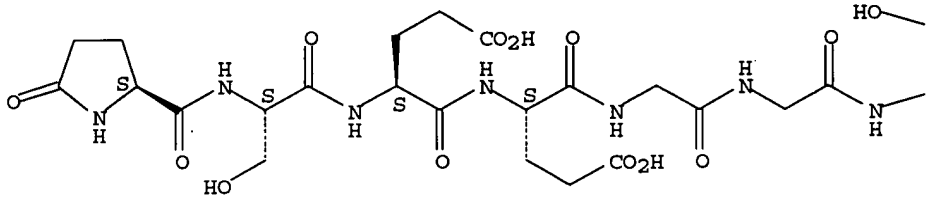
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

RN 162717-63-7 USPATFULL

CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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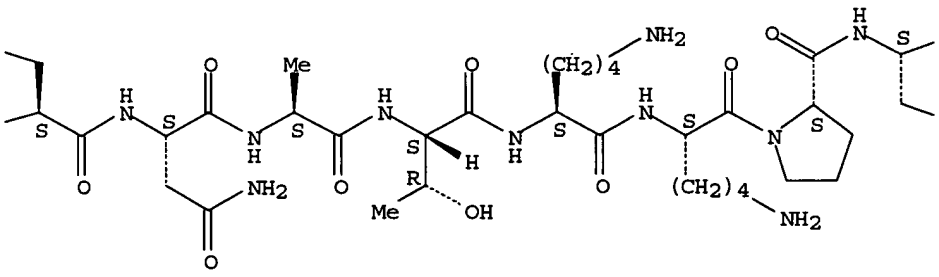

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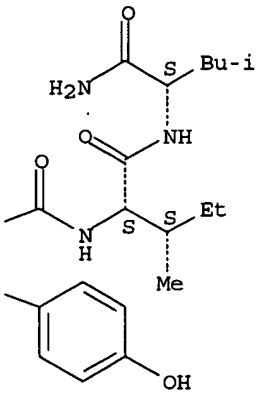
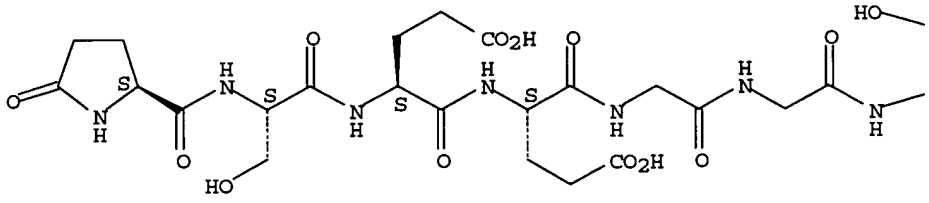


L14 ANSWER 10 OF 10 USPATFULL on STN
AN 95:62707 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, United States
Rivier, Jean E. F., La Jolla, CA, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Abogadie, Fe, Evanston, IL, United States
Hopkins, Chris E., Salt Lake City, UT, United States
Dykert, John, Vista, CA, United States
Torres, Josep L., Barcelona, Spain
PA The Salk Institute For Biological Studies, San Diego, CA, United States (U.S. corporation)
University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---5432155 19950711
AI 1993US-0084848 19930629 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Furman, Keith C.
LREP Fitch, Even, Tabin & Flannery
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1335
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be incorporated as plant defense genes into plant species of interest.

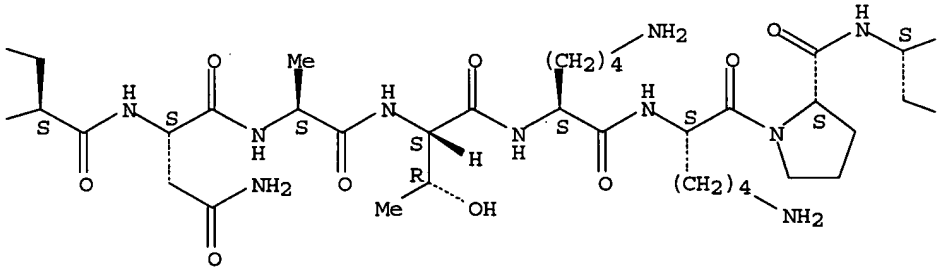
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **162717-63-7P**
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)
RN 162717-63-7 USPATFULL
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

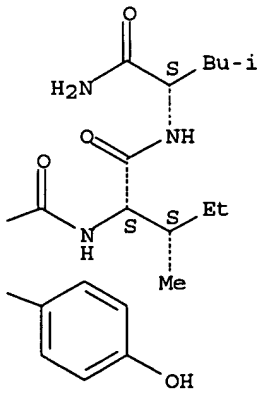
PAGE 1-A



PAGE 1-B



PAGE 1-C



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L1            2 (US20040072758 OR US20050203003 OR US6369193)/PN OR (US2003-695

     FILE 'STNGUIDE' ENTERED AT 11:06:03 ON 27 OCT 2006

     FILE 'REGISTRY' ENTERED AT 11:07:05 ON 27 OCT 2006

     FILE 'HCAPLUS' ENTERED AT 11:07:05 ON 27 OCT 2006
L2              TRA L1 1- RN :       23 TERMS

     FILE 'REGISTRY' ENTERED AT 11:07:05 ON 27 OCT 2006
L3           23 SEA L2
L4           22 L3 AND SQL/FA
L5            7 L4 AND 16/SQL
L6            5 L5 AND MAN/CI

     FILE 'HCAPLUS' ENTERED AT 11:10:31 ON 27 OCT 2006
L7            2 L6

     FILE 'REGISTRY' ENTERED AT 11:10:56 ON 27 OCT 2006
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L9              QUE [EQ][STC]EEGG[STC][QC][AG].{3}P[YW]IL/SQSP
L10          16 L8|L9
L11           5 L10 AND L3

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L12           8 L10

     FILE 'HCAOLD' ENTERED AT 11:15:09 ON 27 OCT 2006
L13           0 L6,L10

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L14          10 L13

     FILE 'HCAPLUS' ENTERED AT 11:16:41 ON 27 OCT 2006
L15           8 L7,L12
                E WAGSTAFF J/AU
L16          36 E3,E13-14
                E LAYER R/AU
L17          43 E4,E6-8
                E MCCABE R/AU
L18          61 E3,E10-11
                E MC CABE R/AU
                E MCCABE T/AU
L19          34 E3-6
L20        2753 (COGNETIX OR SALK (1A)INSTITUTE? OR UTAH (1W)RES? (1A)FOUND?)/C
L21           5 L15 AND L16-20
L22           3 L15 NOT L21

=> b biosis
FILE 'BIOSIS' ENTERED AT 11:27:36 ON 27 OCT 2006
Copyright (c) 2006 The Thomson Corporation

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 27 October 2006 (20061027/ED)


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L25 ANSWER 1 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2004:175584 BIOSIS
DN PREV200400177650
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint Author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Manila, Philippines
ASSIGNEE: University of Utah Research Foundation; Cognetix, Inc.
PI US---6696408 20040224
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 24 2004) Vol. 1279, No. 4. http://www.uspto.gov/web/menu/patdata.html . e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 31 Mar 2004
Last Updated on STN: 31 Mar 2004
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514002000
CC Pathology - Therapy 12512
Digestive system - Pathology 14006
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Nervous system - Pathology 20506
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Digestive system 22014
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
IT Major Concepts
Pharmacology
IT Diseases
cardiovascular disease: heart disease, vascular disease, drug therapy
Cardiovascular Diseases (MeSH)
IT Diseases
gastrointestinal disease: digestive system disease, drug therapy
Gastrointestinal Diseases (MeSH)
IT Diseases
neurological disease: nervous system disease, drug therapy
Nervous System Diseases (MeSH)
IT Diseases
psychological disorders: behavioral and mental disorders, drug therapy
IT Chemicals & Biochemicals
contulakin-G: anticonvulsant-drug, antiinflammatory-drug, antimanic-drug, antipsychotic-drug, cardiovascular-drug, gastrointestinal-drug, immunologic-drug, neuroprotectant-drug; des-glycosylated contulakin-G: anticonvulsant-drug, antiinflammatory-drug, antimanic-drug, antipsychotic-drug,

cardiovascular-drug, gastrointestinal-drug, immunologic-drug, neuroprotectant-drug
RN **229180-41-0** (contulakin-G)

L25 ANSWER 2 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2003:161959 BIOSIS
DN PREV200300161959
TI Contulakin-G, analogs thereof and uses therefor.
AU Wagstaff, John D. [Inventor, Reprint Author]; McCabe, R. Tyler [Inventor]
CS ASSIGNEE: Cognetix, Inc.
PI US---6525021 20030225
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 25 2003) Vol. 1267, No. 4. http://www.uspto.gov/web/menu/patdata.html . e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 26 Mar 2003
Last Updated on STN: 26 Mar 2003
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514008000
CC Genetics - General 03502
Pathology - Therapy 12512
Pharmacology - General 22002
Pharmacology - Blood and hematopoietic agents 22008
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Digestive system 22014
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Pharmacology
IT Chemicals & Biochemicals
cDNA clone [complementary DNA clone]; contulakin-G: analgesic-drug, antiaddictive-drug, antiatherogenic-drug, antidepressant-drug, antidiarrheal-drug, antihypertensive-drug, antiinflammatory-drug, antimanic-drug, antineoplastic-drug, antipsychotic-drug, antithrombotic-drug, anxiolytic-drug, cardiovascular-drug, gastrointestinal-drug, hematologic-drug, immunologic-drug, neuroprotectant-drug, nootropic-drug, native glycosylated peptide; contulakin-G analogs; des-glycosylated contulakin-G [Thr-10-contulakin-G]; precursor peptide
IT Methods & Equipment
cardioprotection: clinical techniques, therapeutic and prophylactic techniques; cytoprotection: clinical techniques, therapeutic and prophylactic techniques; neuroprotection: clinical techniques, therapeutic and prophylactic techniques
RN **229180-41-0** (contulakin-G)

L25 ANSWER 3 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AN 2003:56998 BIOSIS
DN PREV200300056998
TI Contulakin-G, analogs thereof and uses thereof.
AU Craig, A. Grey [Inventor, Reprint Author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Manila, Philippines
ASSIGNEE: Cognetix, Inc.
PI US---6489298 20021203
SO Official Gazette of the United States Patent and Trademark Office Patents, (Dec 3 2002) Vol. 1265, No. 1. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514013000
CC Pathology - Therapy 12512
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
IT Major Concepts
Pharmacology
IT Chemicals & Biochemicals
contulakin-G: analgesic-drug, anticonvulsant-drug, antidepressant-drug, antihypotensive-drug, antiinflammatory-drug, antiparkinsonian-drug, antipsychotic-drug, anxiolytic-drug, cardiovascular-drug, general anesthetic-drug, immunologic-drug, analogs, des-glycosylated
RN **229180-41-0** (contulakin-G)

L25 ANSWER 4 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2002:282958 BIOSIS
DN PREV200200282958
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]
CS Solana Beach, CA, USA
ASSIGNEE: University of Utah Research Foundation; The Salk Institute for Biological Studies
PI US---6369193 20020409
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 9, 2002) Vol. 1257, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent

LA English
ED Entered STN: 8 May 2002
Last Updated on STN: 8 May 2002
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 530300000
CC Biochemistry studies - Proteins, peptides and amino acids 10064
Behavioral biology - Human behavior 07004
Pathology - Therapy 12512
Digestive system - Pathology 14006
Nervous system - Pathology 20506
Psychiatry - Psychopathology, psychodynamics and therapy 21002
Pharmacology - General 22002
IT Major Concepts
Gastroenterology (Human Medicine, Medical Sciences); Neurology (Human Medicine, Medical Sciences); Pharmacology; Psychiatry (Human Medicine, Medical Sciences)
IT Chemicals & Biochemicals
contulakin-G: peptide, pharmaceutical
RN **229180-41-0** (contulakin-G)

L25 ANSWER 5 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2002:192386 BIOSIS
DN PREV200200192386
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint author]; Griffin, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Solana Beach, CA, USA
ASSIGNEE: University of Utah Research Foundation
PI US---6344551 20020205
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb. 5, 2002) Vol. 1255, No. 1. http://www.uspto.gov/web/menu/patdata.htm l. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 13 Mar 2002
Last Updated on STN: 13 Mar 2002
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 536235000

CC Psychiatry - Addiction: alcohol, drugs, smoking 21004
Pathology - General 12502
Pathology - Therapy 12512
Digestive system - Pathology 14006
Cardiovascular system - Blood vessel pathology 14508
Nervous system - Pathology 20506
Pharmacology - General 22002
IT Major Concepts
Human Medicine (Medical Sciences); Pharmacology
IT Diseases
Huntington's chorea: nervous system disease
Huntington Disease (MeSH)
IT Diseases
Parkinson's disease: nervous system disease
Parkinson Disease (MeSH)
IT Diseases
Tourette's syndrome: behavioral and mental disorders, nervous system disease
Tourette Syndrome (MeSH)
IT Diseases
anxiety: behavioral and mental disorders
Anxiety (MeSH)
IT Diseases
arteriosclerosis: vascular disease
Arteriosclerosis (MeSH)
IT Diseases
cognitive dysfunction: behavioral and mental disorders
Cognition Disorders (MeSH)
IT Diseases
depression: behavioral and mental disorders
Depression (MeSH)
IT Diseases
diarrhea: digestive system disease
Diarrhea (MeSH)
IT Diseases
gastrointestinal disorders: digestive system disease
Gastrointestinal Diseases (MeSH)
IT Diseases
hypotension: vascular disease
Hypotension (MeSH)
IT Diseases
irritable bowel syndrome: digestive system disease
Colonic Diseases, Functional (MeSH)
IT Diseases
mania: behavioral and mental disorders
Bipolar Disorder (MeSH)
IT Diseases
neurological disorder: nervous system disease
IT Diseases
panic attack: behavioral and mental disorders
Panic Disorder (MeSH)
IT Diseases
psychosis: behavioral and mental disorders
Psychotic Disorders (MeSH)
IT Diseases
seizure: nervous system disease, convulsion
Seizures (MeSH)
IT Diseases
substance abuse: behavioral and mental disorders
Substance-Related Disorders (MeSH)
IT Diseases
tardive dyskinesia: nervous system disease
Dyskinesia, Drug-Induced (MeSH)
IT Diseases
ulcer: digestive system disease
Ulcer (MeSH)

IT Diseases
vascular leakage: vascular disease
IT Chemicals & Biochemicals
contulakin-G: native glycosylated peptide, pharmaceutical
IT Miscellaneous Descriptors
inflammation; shock; thrombus
RN **229180-41-0** (contulakin-G)

L25 ANSWER 6 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:137996 BIOSIS
DN PREV200100137996
TI Enzymatic glycosylation of contulakin-G, a glycopeptide isolated from Conus venom, with a mammalian ppGalNAc-transferase.
AU Craig, A. G. [Reprint author]; Park, M.; Fischer, W. H.; Kang, J.; Compain, P.; Piller, F.
CS The Clayton Laboratories for Peptide Biology, The Salk Institute, San Diego, CA, 92186-5800, USA
craig@salk.edu
SO Toxicon, (June, 2001) Vol. 39, No. 6, pp. 809-815. print.
CODEN: TOXIA6. ISSN: 0041-0101.
DT Article
LA English
ED Entered STN: 14 Mar 2001
Last Updated on STN: 15 Feb 2002
AB We have determined that the mammalian uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyl-transferase T1 (EC 2.4.1.41) has the appropriate acceptor substrate specificity to recognize the non-glycosylated form of contulakin-G (ZSEEGGSNATKKPYIL-OH where Z = pyroglutamic acid) and to transfer GalNAc to the peptide. Both (Thr10) contulakin-G and a pre-contulakin-G30-66 (RGLVPDDITPQLILGSLISRRQSEEGGSNATK KPYIL-OH) were shown to be acceptors for the mammalian enzyme. The site of attachment of the GalNAc residue was determined using chemical and radioactive sequencing techniques. The mammalian enzyme was highly specific for Thr10 residue, in which the native peptide was found to be glycosylated, compared with either Ser2 or Ser7. In the case of pre-contulakin-G, the enzyme was also highly specific for the equivalent threonine residue. These results suggest that the Cone snail uses an enzyme with similar acceptor specificity to that of the mammalian polypeptide N-acetylgalactosaminyltransferase for glycosylating contulakin-G.
CC Enzymes - General and comparative studies: coenzymes 10802
Toxicology - General and methods 22501
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Toxicology
IT Parts, Structures, & Systems of Organisms
venom
IT Chemicals & Biochemicals
contulakin-G: enzymatic glycosylation; pre-contulakin; uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T1 [EC 2.4.1.41]
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus [snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Mammalia 85700
Super Taxa
Vertebrata; Chordata; Animalia
Organism Name
mammal

Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates
RN **229180-41-0** (contulakin-G)
9075-15-4 (EC 2.4.1.41)

L25 ANSWER 7 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:99449 BIOSIS
DN PREV200100099449
TI Antinociceptive effects of spinal contulakin-G, a cone snail-derived neurotensin.
AU Gurkoff, G. G. [Reprint author]; Wagstaff, J. D.; Layer, R. T.; McCabe, T.; Basbaum, A. I.
CS UCSF, San Francisco, CA, USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-351.7. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002
AB Contulakin-G is a cone snail (Conus Geographus)-derived 16 amino acid protein that binds rat neurotensin (NT) receptor types 1 and 2, as well as human NT type 1 receptor. NT receptors have been identified in the superficial dorsal horn and in PAG and RVM, two loci implicated in the modulation of pain. NT also has antinociceptive properties but with considerable adverse side effects. Consistent with these data, when delivered icv in rat, and dependent on the dose, contulakin-G mimics the effects of NT, producing antinociception, motor impairment and hypothermia. Here we examined the antinociceptive actions of intrathecal contulakin-G in the formalin test, a model of postoperative pain. In the rat, contulakin dose-dependently reduced first and second phases of formalin-evoked pain behavior. The highest dose tested (3 nmols) abolished formalin-evoked pain; this dose was associated with moderate reduction in motor function on the rotarod. Lower doses (0.1 and 0.3 nmols) reduced pain behavior in both phases with no impairment on the rotarod. Because direct spinal delivery of contulakin can produce profound antinociception with very limited side effects, namely hypothermia, grooming dysfunction and motor impairment, these results indicate that spinal contulakin-G has significant potential as an analgesic in clinical pain conditions.
CC Pharmacognosy and pharmaceutical botany 54000
General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Proteins, peptides and amino acids 10064
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Nervous system - Pathology 20506
Pharmacology - Neuropharmacology 22024
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Nervous System (Neural Coordination); Pharmacognosy (Pharmacology)
IT Diseases
postoperative pain: nervous system disease
Pain, Postoperative (MeSH)
IT Chemicals & Biochemicals
contulakin-G: analgesic-drug, Conus geographus extract, neurotensin; neurotensin receptor type 1; neurotensin receptor type 2
IT Miscellaneous Descriptors
motor function; pain modulation; Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa

Mollusca; Invertebrata; Animalia
Organism Name
Conus geographus [cone snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat: animal model
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)

L25 ANSWER 8 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:97785 BIOSIS
DN PREV200100097785
TI Novel peptide analgesic from mollusc-hunting cone snail.
AU McIntosh, J. M. [Reprint author]; Corpuz, G. O.; Layer, R. T.; Garrett, J. E.; Wagstaff, J. D.; Vyazovkina, A.; Bulaj, G.; Cruz, L. J.; Olivera, B. M.
CS University of Utah, Salt Lake City, UT, USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-400.4. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002
AB Cone snails are tropical marine molluscs that envenomate their prey with a complex mixture of pharmacologically active compounds. Due to their high potency and selectivity, several cone snail-derived peptides are under development for the treatment of human disorders. Specific examples are omega-conotoxin MVIIA (ziconotide), an N-type calcium channel antagonist, and contulakin-G, a neurotensin agonist. Both peptides, isolated from fish-hunting cone snails, show promise as novel agents for treatment of pain syndromes. We now report the purification and biochemical characterization of a novel twelve amino acid, disulfide-rich conopeptide from a mollusc-hunting cone snail that produces dose-dependent analgesia in mice as measured by a hot-plate test. This peptide is structurally unrelated to previously isolated conotoxins. Intrathecal doses (0.1 nmol-10 nmol) that produce analgesia do not produce motor impairment as measured by rotorod test. Thus, the new cone venom peptide represents a novel lead for conopeptide analgesics.
CC Pharmacognosy and pharmaceutical botany 54000
General biology - Symposia, transactions and proceedings 00520
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Nervous system - Pathology 20506
Pharmacology - Neuropharmacology 22024
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Nervous System (Neural Coordination); Pharmacognosy (Pharmacology)
IT Diseases
pain syndrome: nervous system disease
IT Chemicals & Biochemicals
conopeptide: analgesic activity, disulfide-rich; contulakin-G: neuroprotectant-drug; o-conotoxin MVIIA [ziconotide]: neuroprotectant-drug
IT Methods & Equipment

hot plate test: analytical method; rotorod test: analytical method
IT Miscellaneous Descriptors
Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
cone snail: mollusc-hunting
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
107452-89-1 (ZICONOTIDE)

L25 ANSWER 9 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2000:147648 BIOSIS
DN PREV200000147648
TI Contulakins: Potent, broad-spectrum analgesic conopeptides.
AU Wagstaff, J. D. [Reprint author]; Layer, R. T. [Reprint author]; Craig, A. G.; Olivera, B. M.; McCabe, R. T. [Reprint author]
CS Cognetix, Inc., Salt Lake City, UT, 84108, USA
SO Society for Neuroscience Abstracts, (1999) Vol. 25, No. 1-2, pp. 1944. print.
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA. October 23-28, 1999. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Apr 2000
Last Updated on STN: 4 Jan 2002
CC Nervous system - General and methods 20501
Biochemistry studies - General 10060
Biophysics - General 10502
Pharmacology - General 22002
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Nervous System (Neural Coordination); Pharmacology
IT Diseases
neuropathic pain, nervous system
Pain (MeSH)
IT Chemicals & Biochemicals
contulakin G; contulakins: analgesics; neurotensin; neurotensin receptors
IT Miscellaneous Descriptors
acute pain; Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus geographicus [marine snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa

Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin G)
39379-15-2 (neurotensin)

L25 ANSWER 10 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2000:144567 BIOSIS
DN PREV200000144567
TI Effect of neurotensin receptor agonist contulakin-G on dopamine release from rat striatal synaptosomes.
AU Kulak, J. M. [Reprint author]; Craig, A. G.; Wagstaff, J.; Layer, R. T.; Imperial, J. [Reprint author]; Olivera, B. M. [Reprint author]
CS Department of Biology, University of Utah, Salt Lake City, UT, 84112, USA
SO Society for Neuroscience Abstracts, (1999) Vol. 25, No. 1-2, pp. 962. print.
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA. October 23-28, 1999. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Apr 2000
Last Updated on STN: 4 Jan 2002
CC Nervous system - General and methods 20501
Cytology - Animal 02506
Biochemistry studies - General 10060
Biophysics - General 10502
Endocrine - General 17002
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Biochemistry and Molecular Biophysics; Nervous System (Neural Coordination)
IT Parts, Structures, & Systems of Organisms
striatal synaptosomes: nervous system
IT Chemicals & Biochemicals
contulakin-G: neurotensin receptor agonist; dopamine: release
IT Miscellaneous Descriptors
Meeting Abstract
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
51-61-6 (dopamine)

L25 ANSWER 11 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 1999:353191 BIOSIS
DN PREV199900353191
TI Contulakin-G, an O-glycosylated invertebrate neurotensin.
AU Craig, A. Grey; Norberg, Thomas; Griffin, David; Hoeger, Carl; Akhtar, Mateen; Schmidt, Karsten; Low, William; Dykert, John; Richelson, Elliott; Navarro, Valerie; Mazella, Jean; Watkins, Maren; Hillyard, David; Imperial, Julita; Cruz, Lourdes J.; Olivera, Baldomero M. [Reprint author]
CS Department of Biology, University of Utah, Salt Lake City, UT, 84112, USA
SO Journal of Biological Chemistry, (May 14, 1999) Vol. 274, No. 20, pp.

13752-13759. print.
CODEN: JBCHA3. ISSN: 0021-9258.
DT Article
LA English
OS Genbank-AF121108
ED Entered STN: 24 Aug 1999
Last Updated on STN: 27 Oct 1999
AB We have purified contulakin-G, a 16-amino acid O-linked glycopeptide (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH, pGlu is pyroglutamate) from Conus geographus venom. The major glycosylated form of contulakin-G was found to incorporate the disaccharide beta-D-Galp-(1fwdarw3)-alpha-D-GalpNAc-(1fwdarw) attached to Thr10. The C-terminal sequence of contulakin-G shows a high degree of similarity to the neurotensin family of peptides. Synthetic peptide replicates of Gal(fwdarw3) GalNAc(alphafwdarw)Thr10 contulakin-G and its nonglycosylated analog were prepared using an Fmoc (9-fluorenylmethoxycarbonyl) protected solid phase synthesis strategy. The synthetic glycosylated contulakin-G, when administered intracerebroventricular into mice, was found to result in motor control-associated dysfunction observed for the native peptide. Contulakin-G was found to be active at 10-fold lower doses than the nonglycosylated Thr10 contulakin-G analog. The binding affinities of contulakin-G and the nonglycosylated Thr10 contulakin-G for a number of neurotensin receptor types including the human neurotensin type 1 receptor (hNTR1), the rat neurotensin type 1 and type 2 receptors, and the mouse neurotensin type 3 receptor were determined. The binding affinity of the nonglycosylated Thr10 contulakin-G was approximately an order of magnitude lower than that of neurotensin1-13 for all the receptor types tested. In contrast, the glycosylated form of contulakin-G exhibited significantly weaker binding affinity for all of the receptors tested. However, both contulakin-G and nonglycosylated Thr10 contulakin-G were found to be potent agonists of rat neurotensin receptor type 1. Based on these results, we conclude that O-linked glycosylation appears to be a highly unusual strategy for increasing the efficacy of toxins directed against neurotransmitter receptors.
CC Toxicology - General and methods 22501
Biochemistry studies - General 10060
Nervous system - General and methods 20501
General biology - Miscellaneous 00532
IT Major Concepts
Biochemistry and Molecular Biophysics; Nervous System (Neural Coordination); Toxicology
IT Chemicals & Biochemicals
contulakin-G: O-glycosylated neurotensin; neurotensin type 1 receptor; neurotensin type 2 receptor; neurotensins
IT Sequence Data
AF121108: Genbank, EBI, amino acid sequence, nucleotide sequence
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus geographus
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
39379-15-2 (neurotensins)

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DICTIONARY FILE UPDATES:  26 OCT 2006  HIGHEST RN 911358-36-6

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FILE LAST UPDATED: 25 Oct 2006  (20061025/ED)

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L21  ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2003:150522  HCAPLUS
DN   138:198665
TI   Contulakin-G, analogs thereof and uses therefor
IN   Wagstaff, John D.; McCabe, R. Tyler
PA   Cognetix, Inc., USA
SO   U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 606,247.
     CODEN: USXXAM
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DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US---6525021	B1	20030225	2000US-0609534	20000630
	US---6369193	B1	20020409	1999US-0420797	19991019
	US---6344551	B1	20020205	2000US-0605990	20000629
	US---6489298	B1	20021203	2000US-0605991	20000629
	US---6696408	B1	20040224	2000US-0606247	20000629
	US2005203003	A1	20050915	2002US-0067857	20020208
	US2004072758	A1	20040415	2003US-0695516	20031029
PRAI	1998US-105015P	P	19981020		
	1999US-128561P	P	19990409		
	1999US-130661P	P	19990423		
	1999US-0420797	A3	19991019		
	2000US-0606247	A2	20000629		
	2002US-0067857	A1	20020208		

OS MARPAT 138:198665

AB The invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivs. thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurol., neuropharmalogical and neuropsychopharmacol. disorders.

IT **499802-77-6**, Contulakin-G (Conus geographus venom)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; contulakin-G, analogs and uses therefor)

IT **229180-41-0**, Contulakin G **499802-79-8**
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(contulakin-G, analogs and uses therefor)

IT **499805-87-7 499805-89-9**
RL: PRP (Properties)
(unclaimed protein sequence; contulakin-G, analogs thereof and uses therefor)

IT **499802-77-6**, Contulakin-G (Conus geographus venom)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; contulakin-G, analogs and uses therefor)

RN 499802-77-6 HCAPLUS
CN Contulakin-G (Conus geographus venom) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LMLGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon			407	Webster's II New Riv	
Clineschmidt, B	1979	54	129	Eur J Pharmacol	HCAPLUS
Craig		274	13752	J Biol Chem	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS

Dubuc, I	1999	381	9	Eur J Pharmacol	HCAPLUS
Dubuc, I	1999	19	503	J Neurosci	HCAPLUS
Kinkead, B	1999	46	340	Biol Psychiatry	HCAPLUS
Nemeroff, C	1992	668	146	Ann NY Acad Sci	HCAPLUS
Olivera	1995			US---5432155 A	HCAPLUS
Olivera	1997			US---5700778 A	HCAPLUS
Shandra, O	1993	39	76	Fiziol Zh	MEDLINE
Tyler, B	1998	792	246	Brain Res	HCAPLUS
Vincent, J	1999	20	302	Trends Pharmacol Sci	HCAPLUS

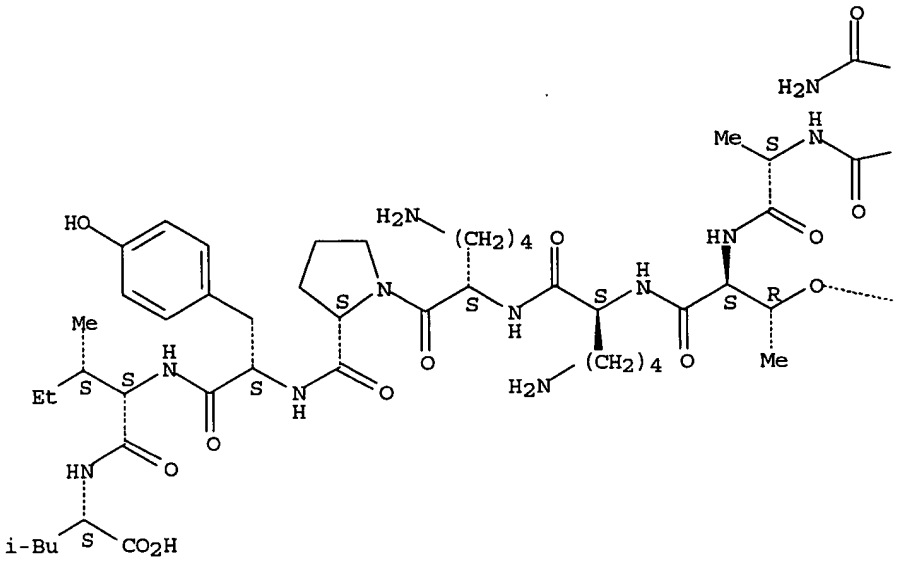
L21 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:64870 HCAPLUS
DN 134:276739
TI Enzymatic glycosylation of contulakin-G, a glycopeptide isolated from Conus venom, with a mammalian ppGalNAc-transferase
AU Craig, A. G.; Park, M.; Fischer, W. H.; Kang, J.; Compain, P.; Piller, F.
CS The **Salk Institute**, The Clayton Foundation Laboratories for Peptide Biology, La Jolla, CA, 92037, USA
SO Toxicon (2001), 39(6), 809-815
CODEN: TOXIA6; ISSN: 0041-0101
PB Elsevier Science Ltd.
DT Journal
LA English
AB The authors have determined that the mammalian uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T1 (EC 2.4.1.41) has the appropriate acceptor substrate specificity to recognize the non-glycosylated form of contulakin-G (ZSEEGGSNATKKPYIL-OH where Z = pyroglutamic acid) and to transfer GalNAc to the peptide. Both [Thr10] contulakin-G and a pre-contulakin-G30-66 (RGLVPDDITPQLILGSLISRRQSEEGGSNATK KPYIL-OH) were shown to be acceptors for the mammalian enzyme. The site of attachment of the GalNAc residue was determined using chemical and radioactive sequencing techniques. The mammalian enzyme was highly specific for Thr10 residue, in which the native peptide was found to be glycosylated, compared with either Ser2 or Ser7. In the case of pre-contulakin-G, the enzyme was also highly specific for the equivalent threonine residue. These results suggest that the Cone snail uses an enzyme with similar acceptor specificity to that of the mammalian polypeptide N-acetylgalactosaminytransferase for glycosylating contulakin-G.
IT **229180-41-0**, Contulakin-G **332345-91-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enzymic glycosylation of the Conus venom glycopeptide contulakin-G with a mammalian ppGalNAc-transferase)
IT **229180-41-0**, Contulakin-G
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enzymic glycosylation of the Conus venom glycopeptide contulakin-G with a mammalian ppGalNAc-transferase)
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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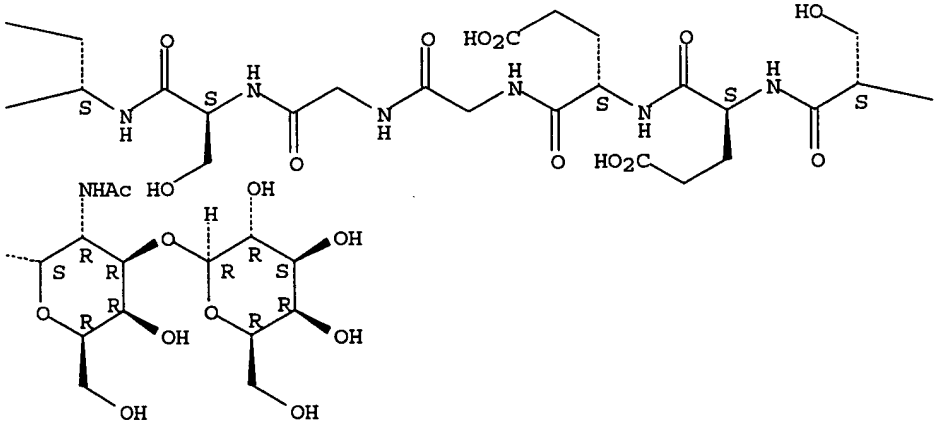

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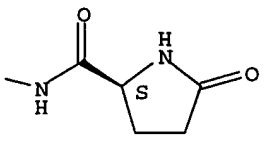

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Craig, A	1998	37	16019	Biochemistry	HCAPLUS
Craig, A	2000			In preparation	
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Gooley, A	1991	178	1194	Biochem Biophys Res	HCAPLUS
Gooley, A	1997	385	557	Nature	HCAPLUS
Hansen, J	1997			http://www.cbs.dtu.d	
Hassani, O	1999	443	175	FEBS Lett	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Sandstrom, C	2000			Submitted for public	
Van den Steen, P	1998	33	151	Crit Rev Biochem Mol	HCAPLUS
Wagstaff, J	1999	25	1944	Proceedings of the 2	
Walker, C	1999	274	30664	J Biol Chem	HCAPLUS
Yoshida, H	1976	15	61	Biochemistry	HCAPLUS

L21 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:277864 HCAPLUS
DN 132:303507
TI Contulakin-G and analogs for therapeutic use
IN Craig, A. Grey; Griffen, David; Olivera, Baldomero M.; Watkins, Maren; Hillyard, David R.; Imperial, Julita; Cruz, Lourdes J.; **Wagstaff, John D.**; **Layer, Richard T.**; Jones, Robert M.; McIntosh, J. Michael; **McCabe, R. Tyler**
PA **Cognetix**, Inc., USA; University of **Utah Research Foundation**; **Salk Institute**
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000023092	A1	20000427	1999WO-US24380	19991020
	WO2000023092	C2	20020822		
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA---2347713	AA	20000427	1999CA-2347713	19991020
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	AU----766294	B2	20031016		
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	EP---1123109	B1	20030924		
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	JP2002527093	T2	20020827	2000JP-0576865	19991020
	AT----250627	E	20031015	1999AT-0953226	19991020
	ES---2207970	T3	20040601	1999ES-0953226	19991020
	HK---1039570	A1	20041015	2002HK-0101114	20020215
	US2004072758	A1	20040415	2003US-0695516	20031029
PRAI	1998US-105015P	P	19981020		
	1999US-128561P	P	19990409		
	1999US-130661P	P	19990423		
	1999US-0420797	A1	19991019		
	1999WO-US24380	W	19991020		
	2002US-0067857	A1	20020208		

OS MARPAT 132:303507
AB The present invention is directed to contulakin-G (which is the native

glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10-contulakin-G), and derivs. thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesic, antipsychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurol., neuropharmacol. and neuropsychopharmacol. disorders.

IT **264900-54-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(amino acid sequence; contulakin-G and analogs for therapeutic use)

IT **229180-41-0**, Contulakin G
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(contulakin-G and analogs for therapeutic use)

IT **229180-42-1D**, glycoconjugates **264915-05-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(contulakin-G and analogs for therapeutic use)

IT **264915-08-4**
RL: PRP (Properties)
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)

IT **264900-54-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(amino acid sequence; contulakin-G and analogs for therapeutic use)

RN 264900-54-1 HCAPLUS
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LMLGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Craig	1999	274	13752	J Biol Chem	HCAPLUS
Olivera	1995			US---5432155 A	HCAPLUS

L21 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:351870 HCAPLUS
DN 131:84192
TI Contulakin-G, an O-glycosylated invertebrate neurotensin
AU Craig, A. Grey; Norberg, Thomas; Griffin, David; Hoeger, Carl; Akhtar, Mateen; Schmidt, Karsten; Low, William; Dykert, John; Richelson, Elliott; Navarro, Valerie; Mazella, Jean; Watkins, Maren; Hillyard, David; Imperial, Julita; Cruz, Lourdes J.; Olivera, Baldomero M.
CS Clayton Foundation Laboratories Peptide Biology, Salk Institute, La Jolla, CA, 92037, USA
SO Journal of Biological Chemistry (1999), 274(20), 13752-13759

CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The authors have purified contulakin-G, a 16-amino acid O-linked glycopeptide (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH, pGlu is pyroglutamate) from Conus geographus venom. The major glycosylated form of contulakin-G was found to incorporate the disaccharide β-D-Galp-(1→3)-α-D-GalpNAc-(1→) attached to Thr10. The C-terminal sequence of contulakin-G shows a high degree of similarity to the neurotensin family of peptides. Synthetic peptide replicates of Gal(β→3) GalNAc(α→)Thr10 contulakin-G and its nonglycosylated analog were prepared using an Fmoc (9-fluorenylmethoxycarbonyl) protected solid phase synthesis strategy. The synthetic glycosylated contulakin-G, when administered intracerebroventricular into mice, was found to result in motor control-associated dysfunction observed for the native peptide. Contulakin-G was found to be active at 10-fold lower doses than the nonglycosylated Thr10 contulakin-G analog. The binding affinities of contulakin-G and the nonglycosylated Thr10 contulakin-G for a number of neurotensin receptor types including the human neurotensin type 1 receptor (HNTR1), the rat neurotensin type 1 and type 2 receptors, and the mouse neurotensin type 3 receptor were determined The binding affinity of the non glycosylated Thr10 contulakin-G was approx. an order of magnitude lower than that of neurotensin1-13 for all the receptor types tested. In contrast, the glycosylated form of contulakin-G exhibited significantly weaker binding affinity for all of the receptors tested. However, both contulakin-G and nonglycosylated Thr10 contulakin-G were found to be potent agonists of rat neurotensin receptor type 1. Based on these results, the authors conclude that O-linked glycosylation appears to be a highly unusual strategy for increasing the efficacy of toxins directed against neurotransmitter receptors.
IT **228403-92-7**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
IT **229180-41-0P**, Contulakin G **229180-42-1P**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
IT **228403-92-7**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; purification and characterization of contulakin-G of cone snail, Conus geographus)
RN 228403-92-7 HCAPLUS
CN Contulakin-G (Conus geographus venom precursor) (9CI) (CA INDEX NAME)

SEQ 1 MQTAYWVMVM MMVWIAAPLS EGGKLNDVIR GLVPDDITPQ LILGSLISRR
51 QSEEGGSNAT KKPYILRASD QVASGP

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Araki, K	1973	21	2801	Chem Pharm Bull (Tok	HCAPLUS
Baenziger, J	1994	8	1019	FASEB J	HCAPLUS

Barber, M	1982	54	645	Anal Chem	
Carraway, R	1973	248	6854	J Biol Chem	HCAPLUS
Chabry, J	1994	63	19	J Neurochem	HCAPLUS
Colledge, C	1992	30	1111	Toxicon	HCAPLUS
Cotter, R	1989	18	513	Biomed Mass Spectrom	MEDLINE
Craig, A	1998	37	16019	Biochemistry	HCAPLUS
Craig, A	1993	22	31	Biol Mass Spectrom	HCAPLUS
Craig, A	1994	23	519	Biol Mass Spectrom	HCAPLUS
Craig, A	1997	272	4689	J Biol Chem	HCAPLUS
Cruz, L	1985	260	9280	J Biol Chem	HCAPLUS
Cruz, L	1987	262	15821	J Biol Chem	HCAPLUS
Cusack, B	1991	206	339	Eur J Pharmacol	HCAPLUS
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Feurle, G	1992	267	22305	J Biol Chem	HCAPLUS
Fischer, W	1987	84	3628	Proc Natl Acad Sci U	HCAPLUS
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Haack, J	1990	265	6025	J Biol Chem	HCAPLUS
Hillenkamp, F	1993	63	1193	Anal Chem	
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Jimenez, E	1996	271	28002	J Biol Chem	HCAPLUS
Lenguyen, D	1986	27	285	Int J Pept Protein R	MEDLINE
Loughnan, M	1998	273	15667	J Biol Chem	HCAPLUS
Luning, B	1989	6	5	Glycoconj J	MEDLINE
Mazella, J	1988	263	144	J Biol Chem	HCAPLUS
McIntosh, J	1984	259	14343	J Biol Chem	HCAPLUS
McIntosh, M	1982	218	329	Arch Biochem Biophys	HCAPLUS
McLuckey, S	1991	63	375	Anal Chem	HCAPLUS
Minamino, N	1984	122	542	Biochem Biophys Res	HCAPLUS
Monje, V	1993	32	1141	Neuropharmacolgy	HCAPLUS
Munson, P	1980	107	220	Anal Biochem	HCAPLUS
Norberg, T	1994	247	87	Methods in Enzymolog	HCAPLUS
Olivera, B	1984	23	5087	Biochemistry	HCAPLUS
Olivera, B	1991	266	22067	J Biol Chem	HCAPLUS
Olivera, B	1997	8	2101	Mol Biol Cell	HCAPLUS
Olivera, B	1990	249	257	Science	HCAPLUS
Olivera, B	1985	23	277	Toxicon	HCAPLUS
Sadoul, J	1984	120	812	Biochem Biophys Res	HCAPLUS
Spengler, B	1992	6	105	Rapid Commun Mass Sp	HCAPLUS
Stewart, J	1984		176	Solid Phase Peptide	
Tanaka, K	1990	4	847	Neuron	HCAPLUS
Terlau, H	1996	381	148	Nature	HCAPLUS
Tyler, B	1998	792	246	Brain Res	HCAPLUS
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Yoshida, H	1976	15	61	Biochemistry	HCAPLUS

L21 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:494558 HCAPLUS
DN 123:50449
TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals
IN Olivera, Baldomero M.; Rivier, Jean E. F.; Cruz, Lourdes J.; Abogadie, Fe; Hopkins, Chris E.; Dykert, John; Torres, Josep L.
PA **Salk Institute** for Biological Studies, USA; University of **Utah Research Foundation**
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

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PI	WO---9501436	A1	19950112	1994WO-US07194	19940627
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	CA---2165566	AA	19950112	1994CA-2165566	19940627

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	CA---2420184	C	20040921		
	AU---9471158	A1	19950124	1994AU-0071158	19940627
	AU----678837	B2	19970612		
	EP----706566	A1	19960417	1994EP-0920316	19940627
	EP----706566	B1	20030827		
	R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
	EP---1336617	A2	20030820	2003EP-0075795	19940627
	EP---1336617	A3	20031210		
	EP---1336617	B1	20041229		
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	AT----286128	E	20050115	2003AT-0075795	19940627
	US---5700778	A	19971223	1995US-0458499	19950602
	AU---9735197	A1	19971120	1997AU-0035197	19970821
	AU----699078	B2	19981119		
	US-----39240	E	20060815	1999US-0469496	19991222
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	1994CA-2165566	A3	19940627		
	1994EP-0920316	A3	19940627		
	1994WO-US07194	W	19940627		

OS CASREACT 123:50449; MARPAT 123:50449

AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. The peptides may be used to analyze acetylcholine receptors and in pharmaceuticals (no data). Thirteen different conotoxins containing 16-46 amino acids were prepared by solid phase peptide synthesis and tested for biol. activity.

IT **162717-63-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

IT **162717-63-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

RN 162717-63-7 HCAPLUS

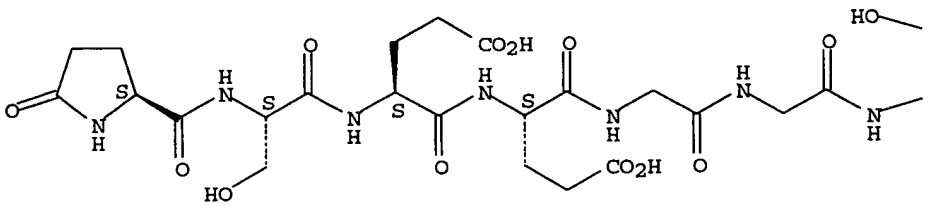
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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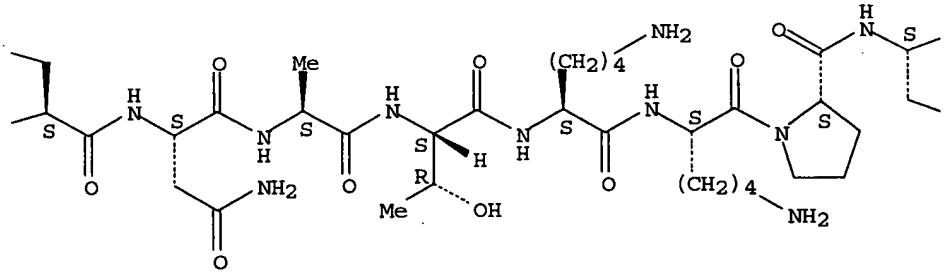

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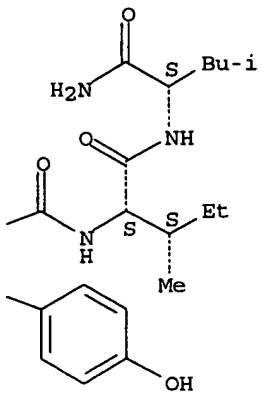
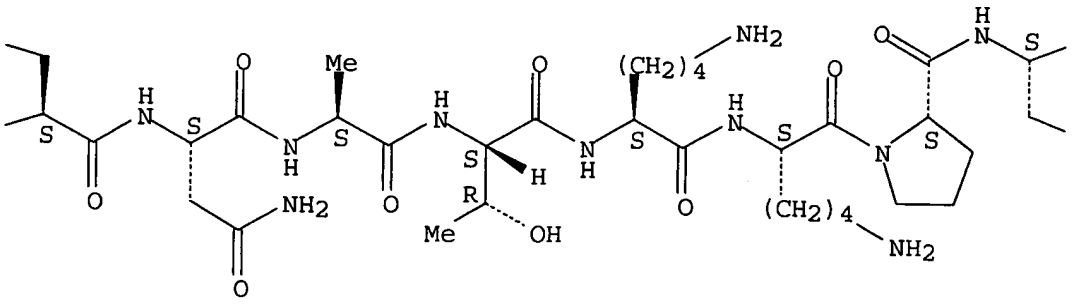
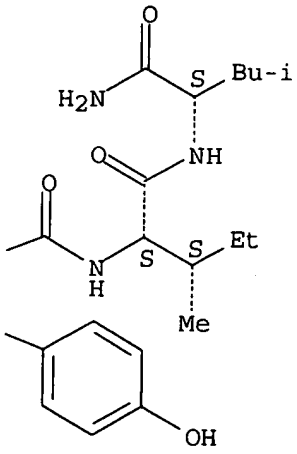


L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 162717-63-7 REGISTRY
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-seryl-L-isoleucyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Conotoxin peptide J-004
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16
NTE modified type
---------- ----- location ----- description
terminal mod. - C-terminal amide
uncommon mod. Leu-16 -
---------- Glp-1 ----------
SEQ 1 XSEEGGSNAT KKPYIL
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C74 H118 N20 O26
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
Absolute stereochemistry.





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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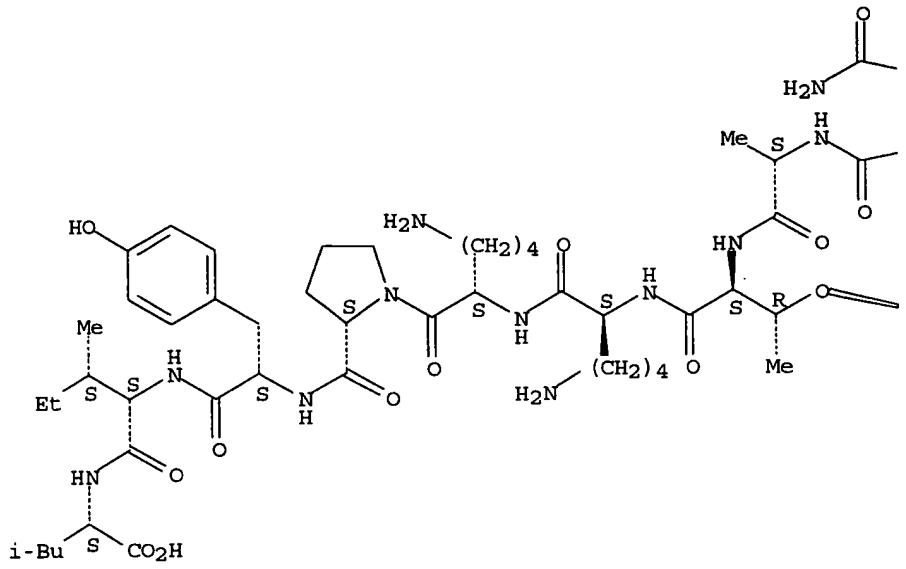
L22 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1321341 HCAPLUS
DN 144:213003
TI Chemical synthesis of analogs of the glycopeptide contulakin-G, an analgetically active conopeptide from Conus geographus
AU Westerlind, Ulrika; Norberg, Thomas
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Carbohydrate Research (2005), Volume Date 2006, 341(1), 9-18
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 144:213003
AB Cone snails are marine predators that use immobilizing venoms for catching prey. Chemical anal. of the venoms has revealed a variety of biol. active small and intermediate size peptides rich in post-translational modifications (modified amino acids, glycosylation). The glycopeptide contulakin-G (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-[β-D-Galp-(1→3)]-α-D-GalpNAc-(1→3)Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH) is a potent analgesic from Conus geographus venom. The in vivo activity of synthetic contulakin-G was previously found to be significantly higher compared to that of a peptide lacking the glycan. In order to further investigate the importance of the glycan, we have now synthesized analogs of contulakin-G where the glycan chain O-linked to threonine has been altered either to β-D-Galp-(1→3)-β-D-GalpNAc-, α-D-Galp-(1→3)-α-D-GalpNAc-, or β-D-Galp-(1→6)-α-D-GalpNAc-. The glycopeptides were assembled on a Wang resin using com. available Fmoc (Fmoc = 9-fluorenylmethoxycarbonyl) amino acids and synthetically prepared Fmoc-protected threonine derivs. carrying O-acetyl protected sugar chains. The final products were thoroughly characterized by NMR and mass spectroscopy.
IT **875484-91-6P 875484-93-8P 875484-95-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of analogs of glycopeptide contulakin-G from Conus geographus venom as potent analgesics by galactosylation of threonine and solid phase peptide synthesis)
RN 875484-91-6 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[4,6-di-O-acetyl-2-(acetylamino)-2-deoxy-3-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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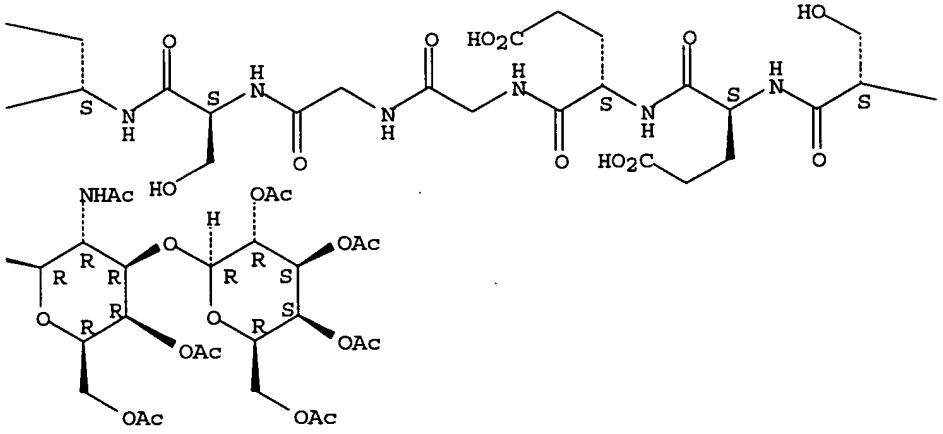

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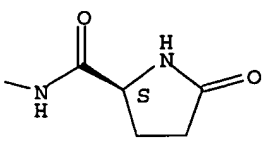

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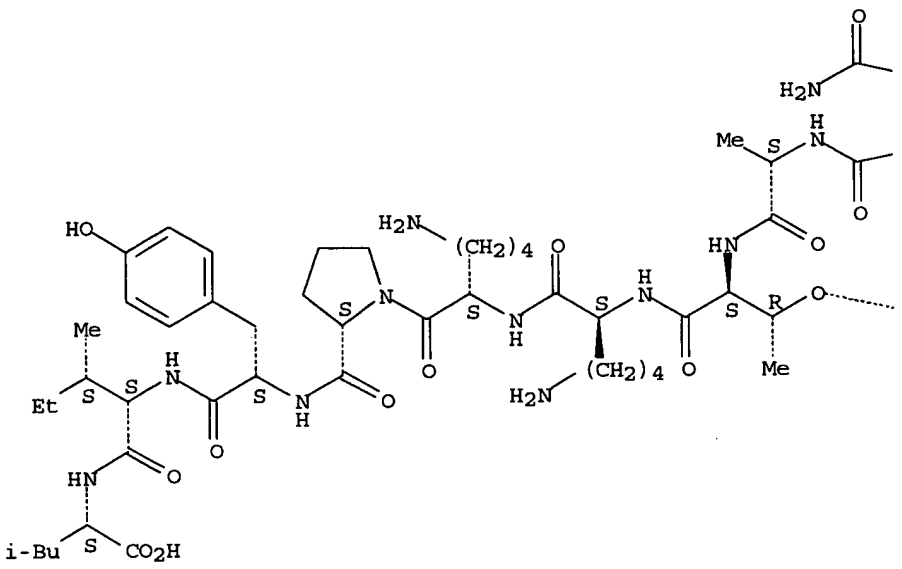
Absolute stereochemistry.

PAGE 1-A



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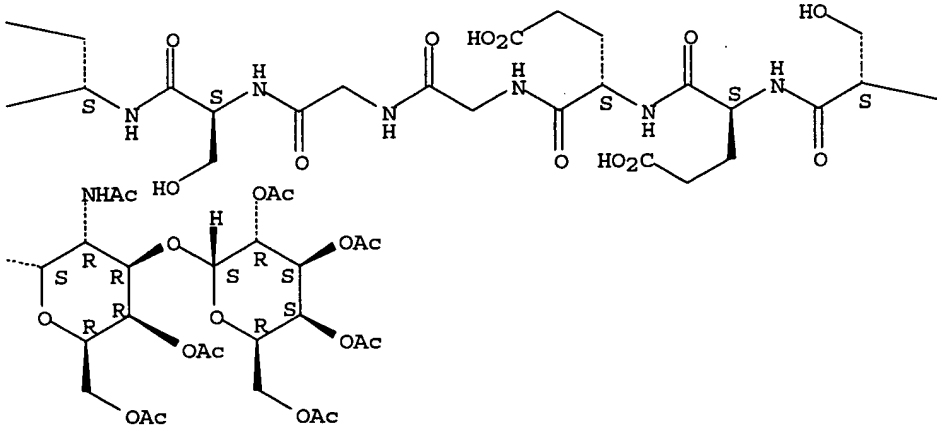

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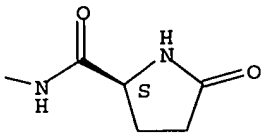

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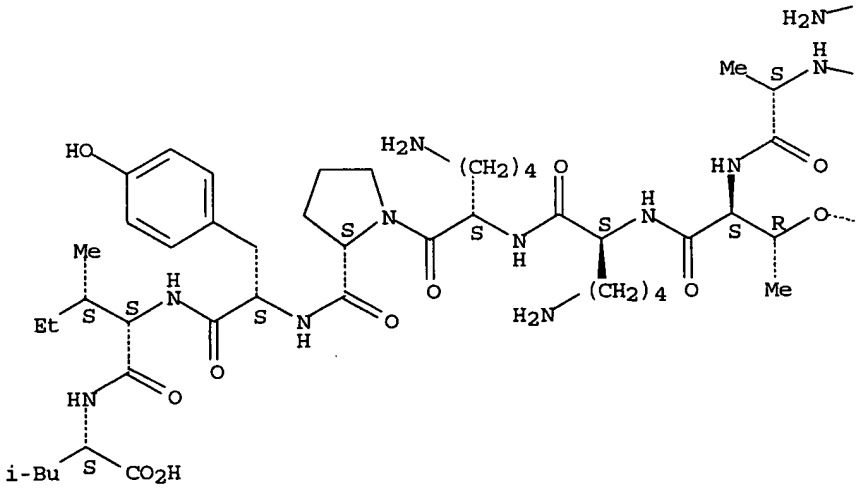
Absolute stereochemistry.

PAGE 1-A



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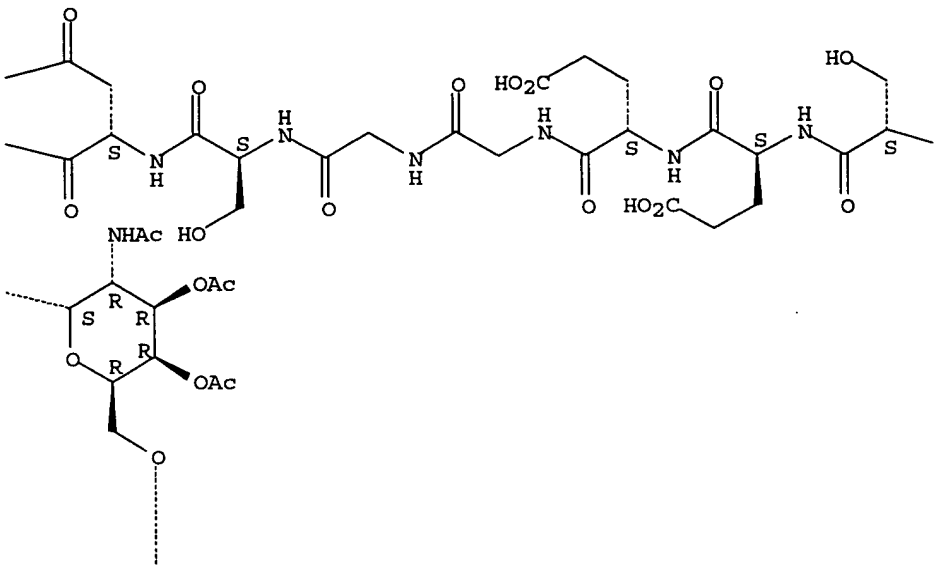

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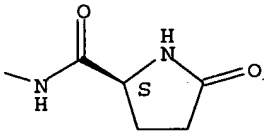

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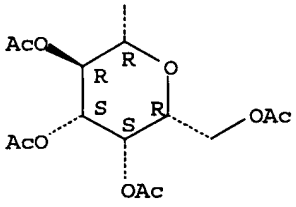


IT **229180-41-0DP**, Contulakin G, analogs **875484-92-7P**
875484-94-9P 875484-96-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of analogs of glycopeptide contulakin-G from Conus geographus venom as potent analgesics by galactosylation of threonine and solid phase peptide synthesis)

RN 229180-41-0 HCAPLUS

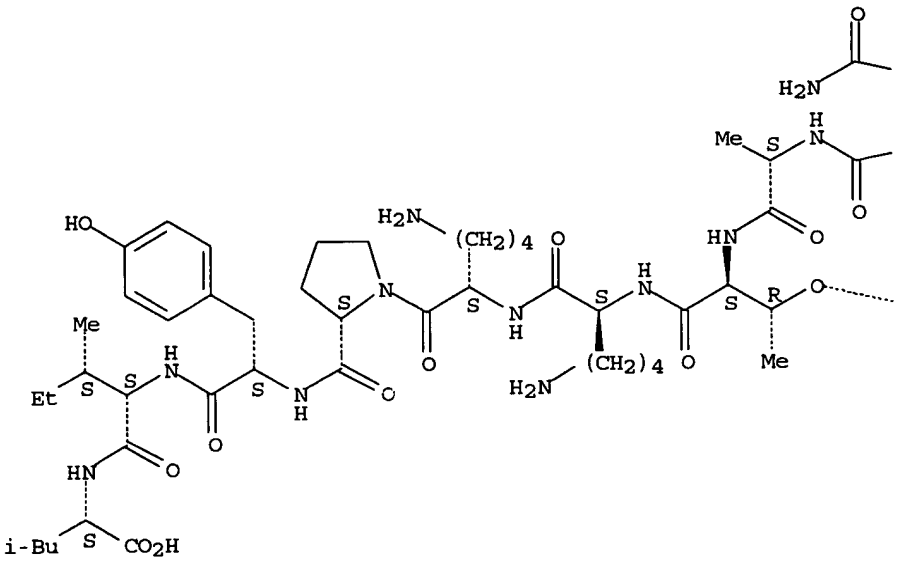
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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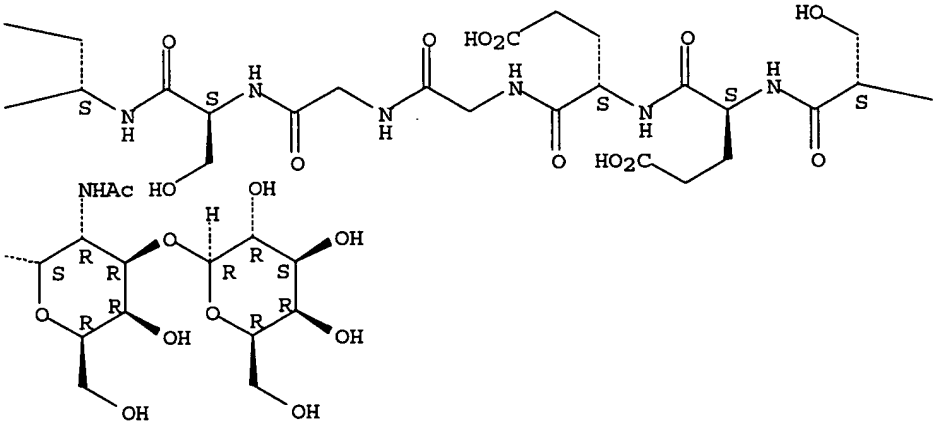

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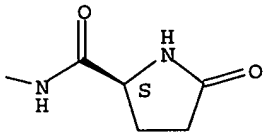


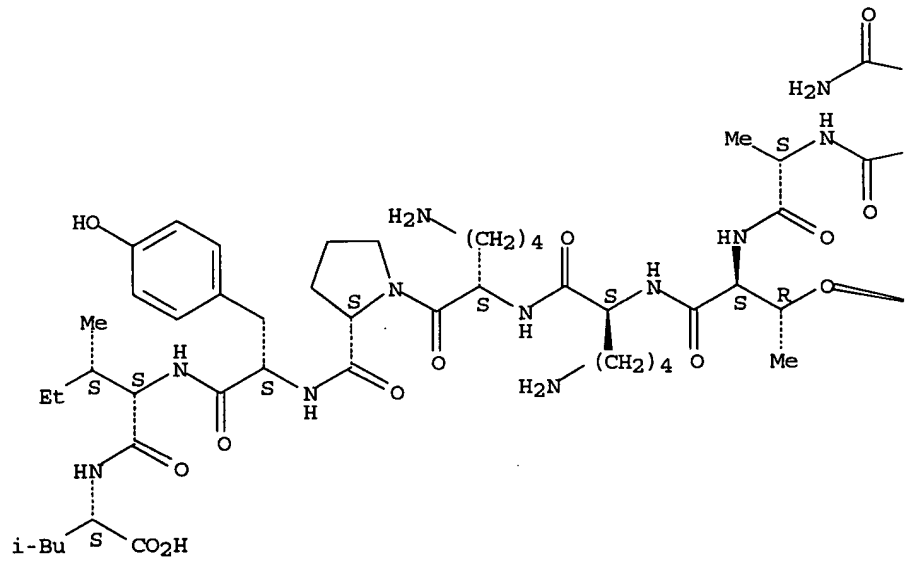
RN 875484-92-7 HCAPLUS
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-O-[2-(acetylamino)-2-deoxy-3-O-β-D-galactopyranosyl-β-D-galactopyranosyl]-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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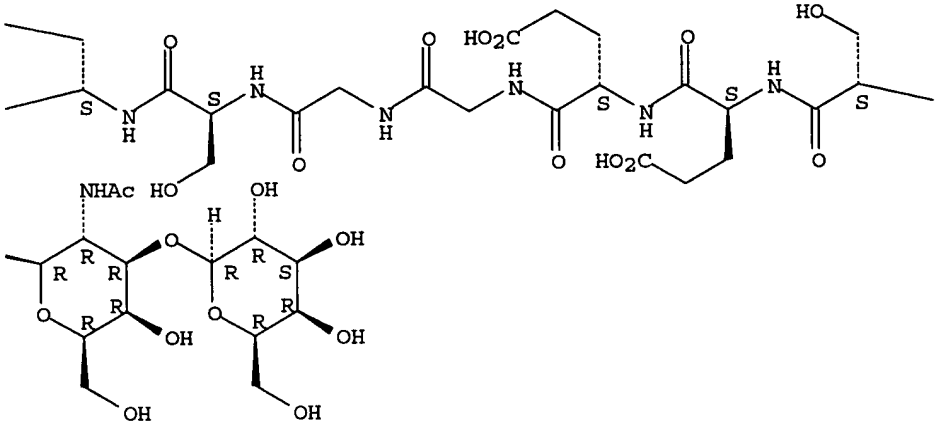

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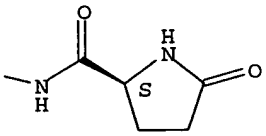

RN 875484-94-9 HCAPLUS

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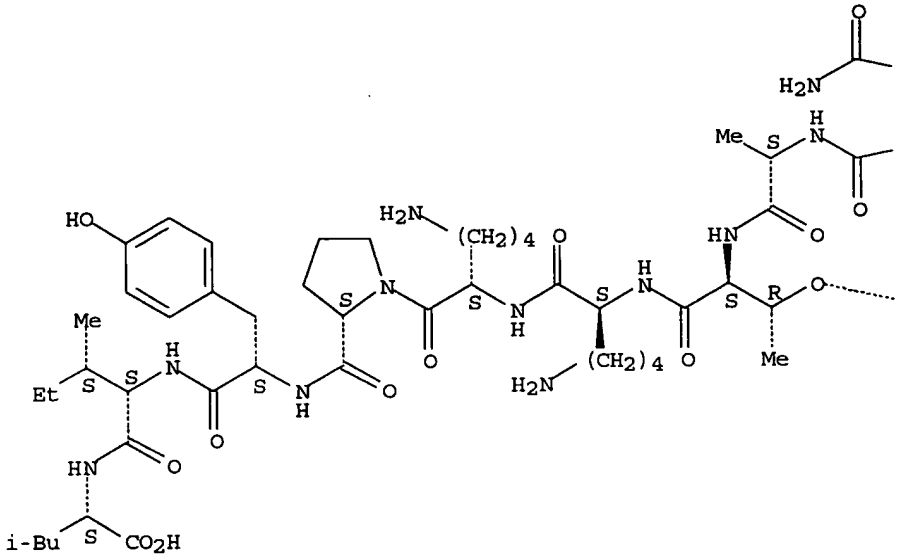
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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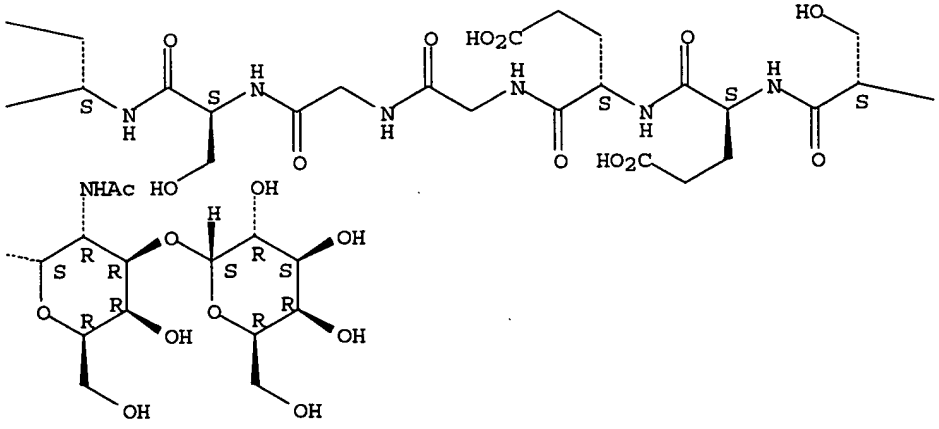

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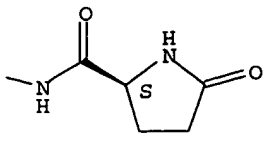

RN 875484-96-1 HCAPLUS
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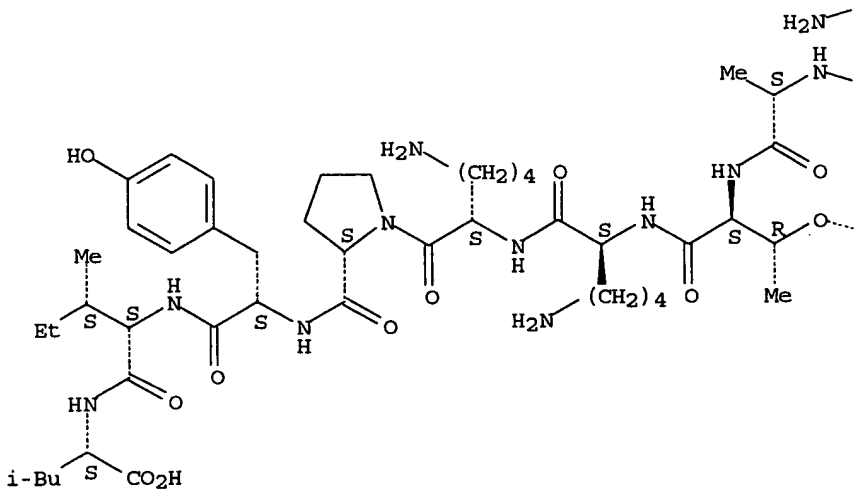
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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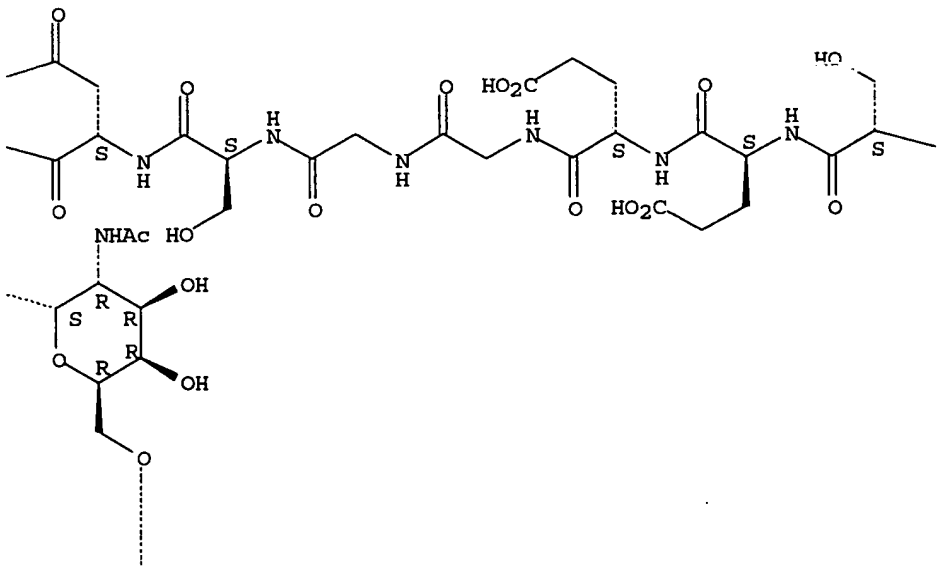

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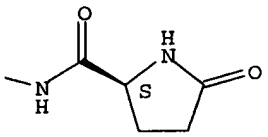

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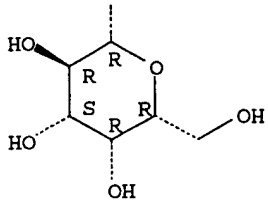

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Andersson, L	2000		459	J Chem Soc, Perkin T	HCAPLUS
Anon				Unpublished results	
Corthay, A	1998	28	2580	Eur J Immunol	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Delorme, E	1992	31	9871	Biochemistry	HCAPLUS
Fugedi, P	1986	149	C9	Carbohydr Res	HCAPLUS
Garegg, P	1980	83	157	Carbohydr Res	
Higuchi, M	1992	267	7703	J Biol Chem	HCAPLUS
Kaiser, E	1970	34	595	Anal Biochem	HCAPLUS
Kindahl, L	2002	80	1022	Can J Chem	HCAPLUS
Lemieux, R	1963	2	221	Methods in Carbohydr	
Luning, B	1989	6	5	Glycoconjug J	MEDLINE
Moore, J	1970	11	4423	Tetrahedron Lett	
Narhi, L	1991	266	23022	J Biol Chem	HCAPLUS
Olivera, B	1990	249	257	Science	HCAPLUS
Wagstaff, J				in preparation	

L22 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:354661 HCAPLUS
DN 143:65241
TI 1H NMR studies on the solution conformation of the [L-ser10] and [D-ser10] analogs of contulakin-G
AU Kindahl, Lill; Kenne, Lennart; Sandstroem, Corine
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Canadian Journal of Chemistry (2005), 83(2), 156-165
CODEN: CJCHAG; ISSN: 0008-4042
PB National Research Council of Canada
DT Journal
LA English
AB The synthesis of the O-glycosylated serine-10 analog of contulakin-G yielded both the [L-] and the [D-Ser10] analogs. The 1H NMR study indicated that the sugars of the two Ser10-glycosylated peptides lacked the hydrogen bond to the peptide backbone that exists in contulakin-G. NOEs showed that the glycan part of the [D-Ser10] analog had a different

orientation to the peptide backbone than that of the [L-Ser10] analog. The peptide backbones in the two compds. were found to exist mainly in random coil conformations, with transient turns at the site of glycosylation. A transient turn was also found at the C-terminus of the [D-Ser10] glycopeptide. The NMR data indicated that the average conformation of the [D-Ser10] analog resembles the conformation of contulakin-G more than the [L-Ser] does. Since biol. data showed that the [D-Ser10] glycopeptide was as active as contulakin-G, while the [L-Ser10] glycopeptide was only slightly active at more than 100 times the dose, it is possible that it is the orientation of the glycan relative to the peptide chain that is actually recognized by the proteolytic enzyme.

IT **229180-41-0**, Contulakin G **229180-42-1**
478921-16-3 478921-22-1
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NMR studies on solution conformation of contulakin-G and its analogs)

RN 229180-41-0 HCAPLUS

CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

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Absolute stereochemistry.

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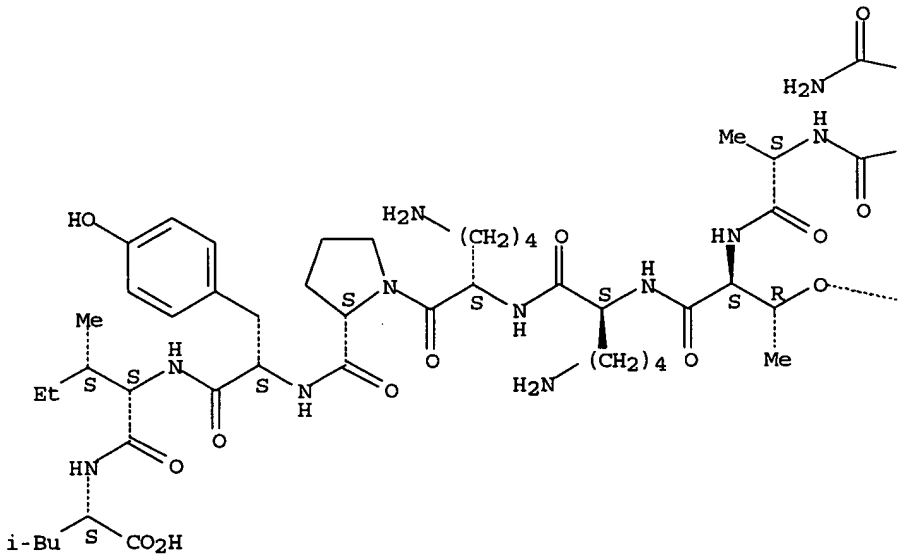

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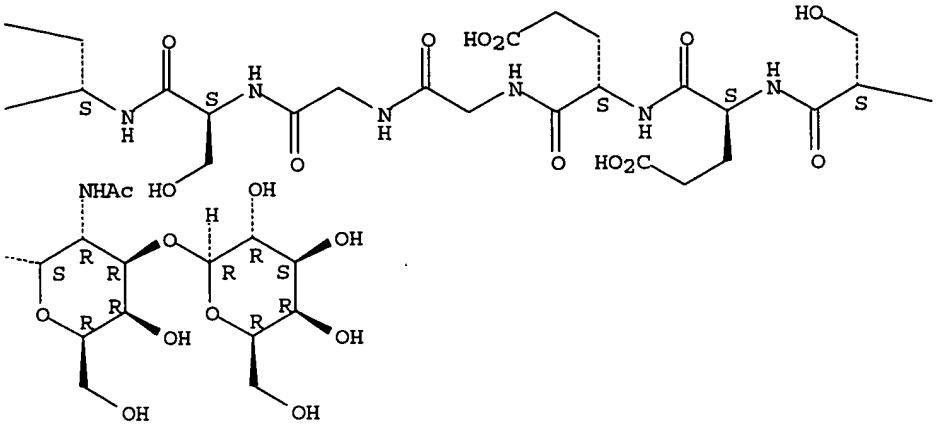

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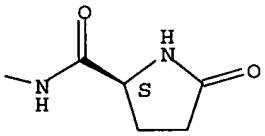

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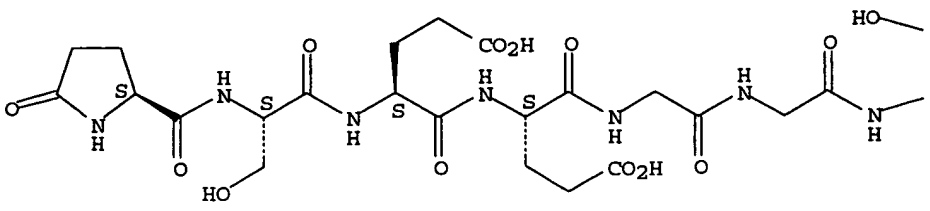
SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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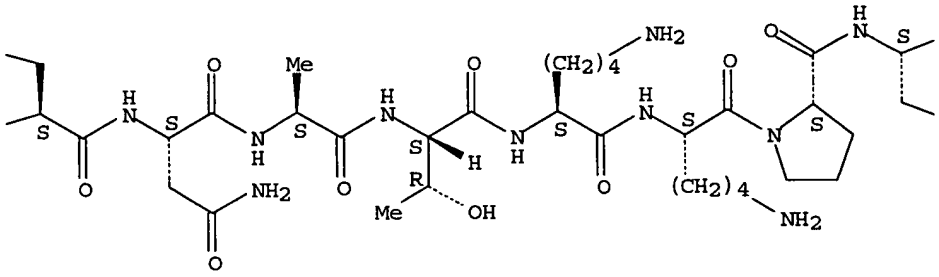

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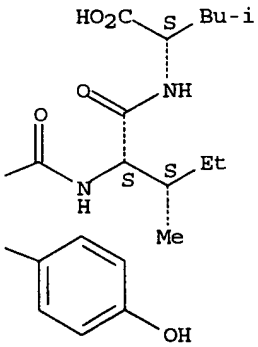

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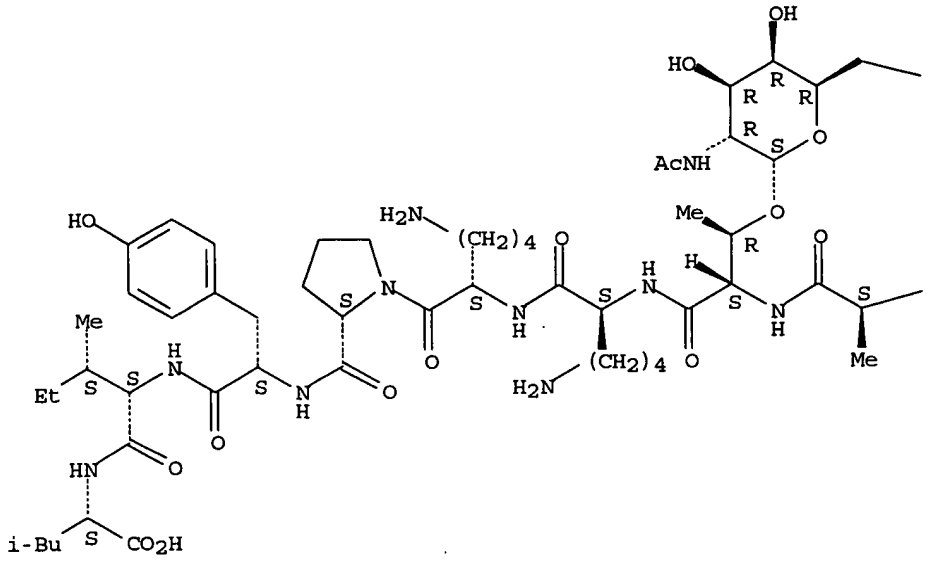
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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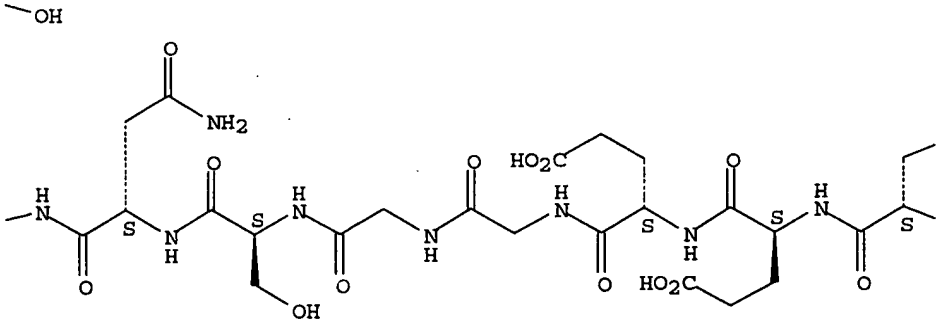

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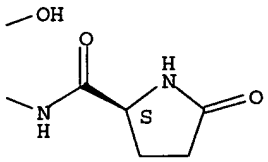

RN 478921-22-1 HCAPLUS
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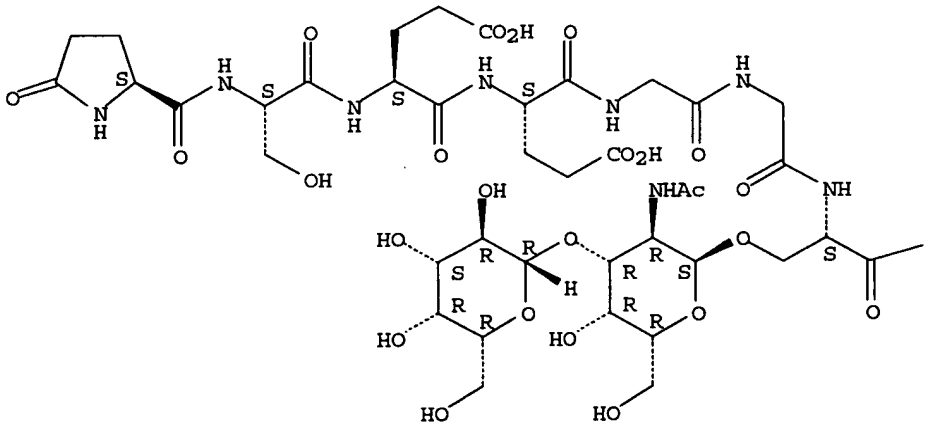
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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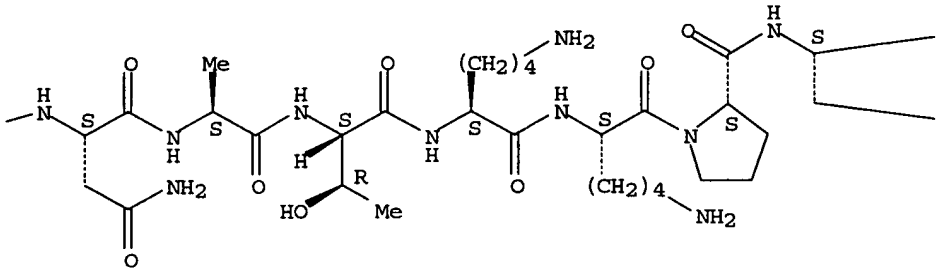

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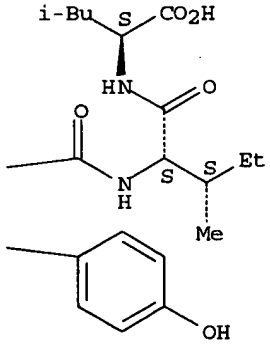

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Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Grinstead, J	2002	41	9946	Biochemistry	HCAPLUS
Huang, X	1997	36	10846	Biochemistry	HCAPLUS
Hylden, J	1980	67	313	Eur J Pharmacol	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Kindahl, L	2002	80	1022	Can J Chem	HCAPLUS
Kirnarsky, L	2000	39	12076	Biochemistry	HCAPLUS
Marion, D	1983	113	967	Biochem Biophys Res	HCAPLUS
Naganagowda, G	1999	54	290	J Pept Res	HCAPLUS
Nieto, J	1986	28	315	Int J Pept Protein R	HCAPLUS
Piotto, M	1992	2	661	J Biomol NMR	HCAPLUS
Strom, K	2002	68	4322	J Appl Environ Micro	HCAPLUS
Wagstaff, J	1999	25	1944	Proc 29th Annu Meet	
Wishart, D	1992	31	1647	Biochemistry	HCAPLUS
Wishart, D	1995	5	67	J Biomol NMR	HCAPLUS
Xu, G	1991	37	528	Int J Pept Protein R	HCAPLUS

L22 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:790631 HCAPLUS
DN 138:34508
TI 1H NMR studies on the solution conformation of contulakin-G and analogues
AU Kindahl, Lill; Sandstrom, Corine; Craig, A. Grey; Norberg, Thomas; Kenne,

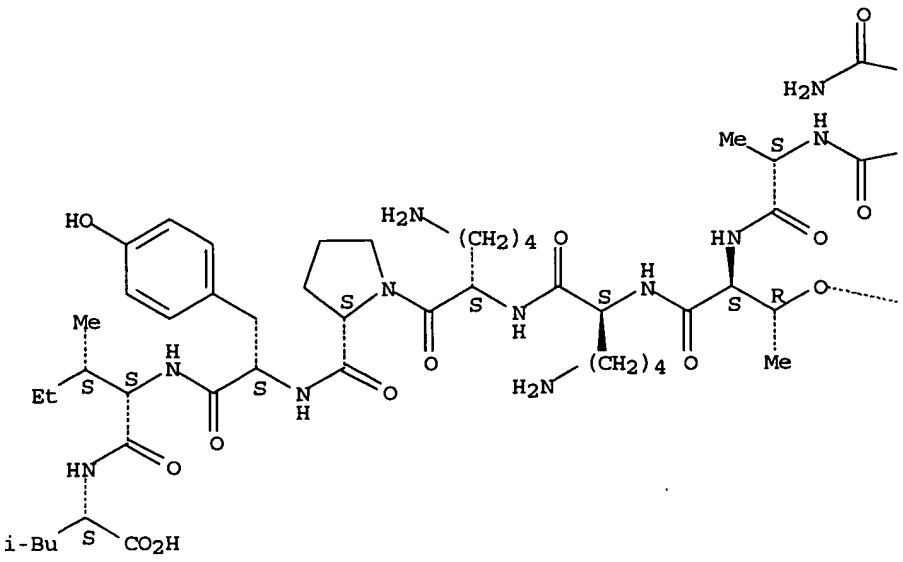
Lennart
CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, SE-750 07, Swed.
SO Canadian Journal of Chemistry (2002), 80(8), 1022-1031
CODEN: CJCHAG; ISSN: 0008-4042
PB National Research Council of Canada
DT Journal
LA English
AB The conformation of contulakin-G, a bioactive 16 amino acid O-linked glycopeptide (ZSEEGGSNAT*KKPYIL) with the disaccharide β-D-Gal(1→3)α-D-GalNAc attached to the threonine residue in position 10, has been investigated by 1H NMR spectroscopy. The 1H-NMR data for the non-glycosylated peptide and for two glycopeptide analogs, one with the monosaccharide α-D-GalNAc at Thr10 and one with the disaccharide β-D-Gal(1→3)α-D-GalNAc at Ser7, all of lower bioactivity than contulakin-G, have also been collected. The chemical shifts, NOEs, temperature coeffs. of amide protons, and 3JNH,αH-values suggest that all four compds. exist mainly in random coil conformations. Some transient populations of folded conformations are also present in the glycopeptides and turns, probably induced by the sugars, are present in the peptide chain around the site of glycosylation. In the two peptides O-glycosylated at Thr10, the rotation of α-D-GalNAc around the linkage between the sugar and the peptide is restricted. There is evidence for a hydrogen bond between the amide proton of α-D-GalNAc and the peptide chain that could contribute to this torsional rigidity. An intramol. hydrogen bond between the carbohydrate and the peptide chain does not exist in the peptide O-glycosylated at the Ser7 residue.
IT **229180-41-0**, Contulakin G **229180-41-0D**, Contulakin-G, analogs **229180-42-1 478921-16-3 478921-22-1**
RL: PRP (Properties)
(1H-NMR studies on solution conformation of contulakin-G and analogs)
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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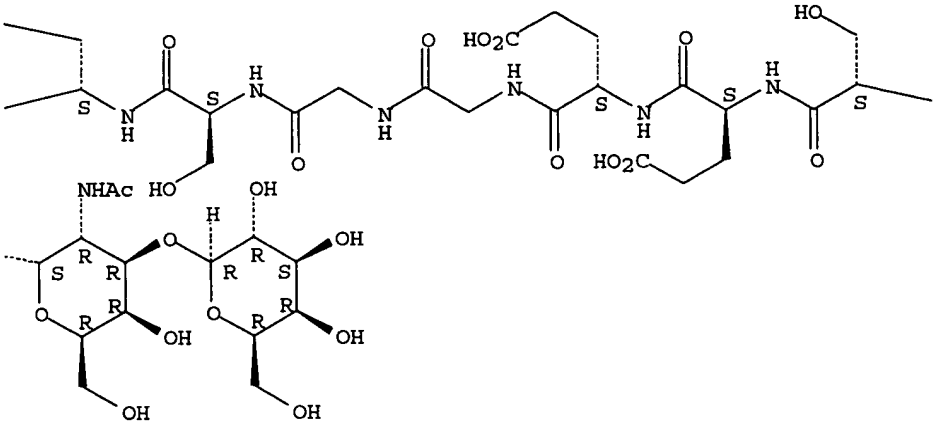

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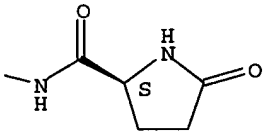


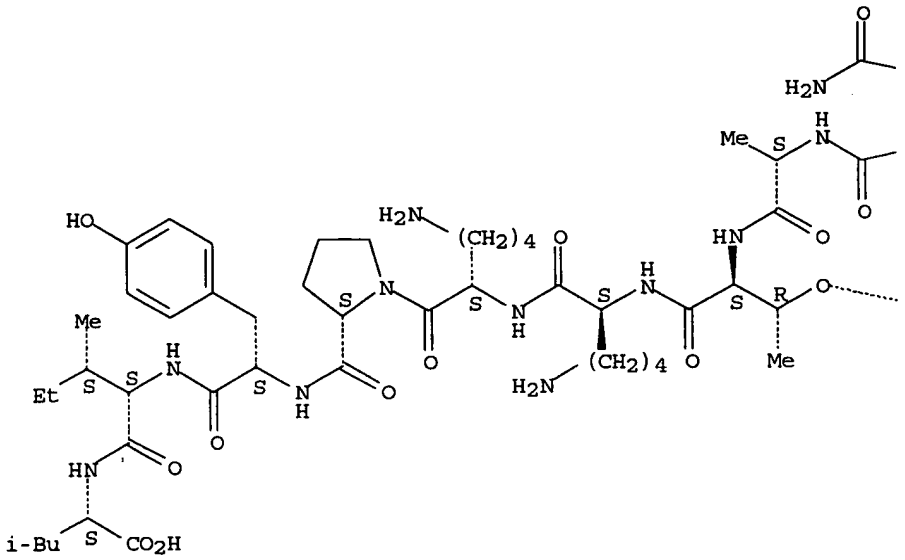
RN 229180-41-0 HCAPLUS
CN Contulakin G (9CI) (CA INDEX NAME)

NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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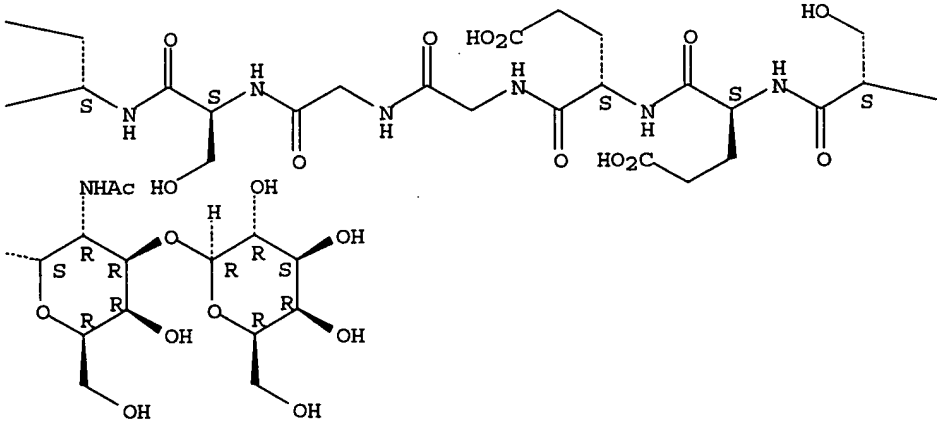

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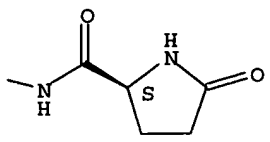

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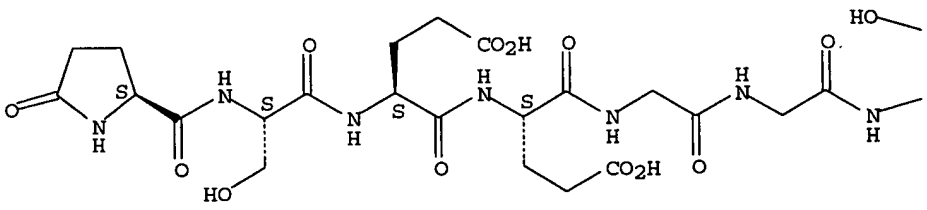
SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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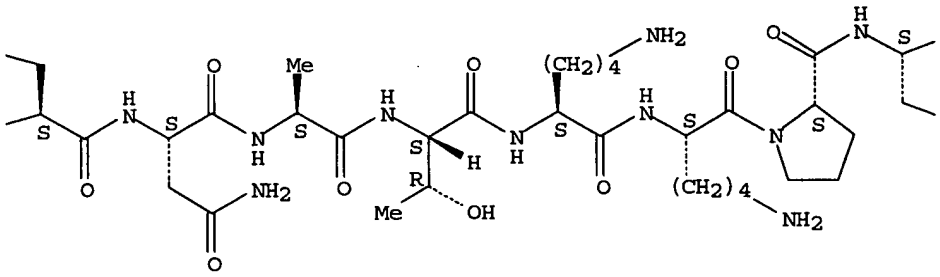

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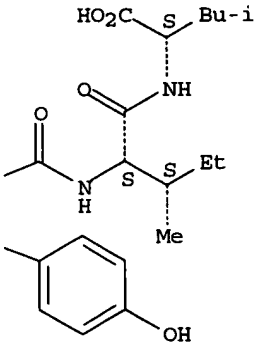

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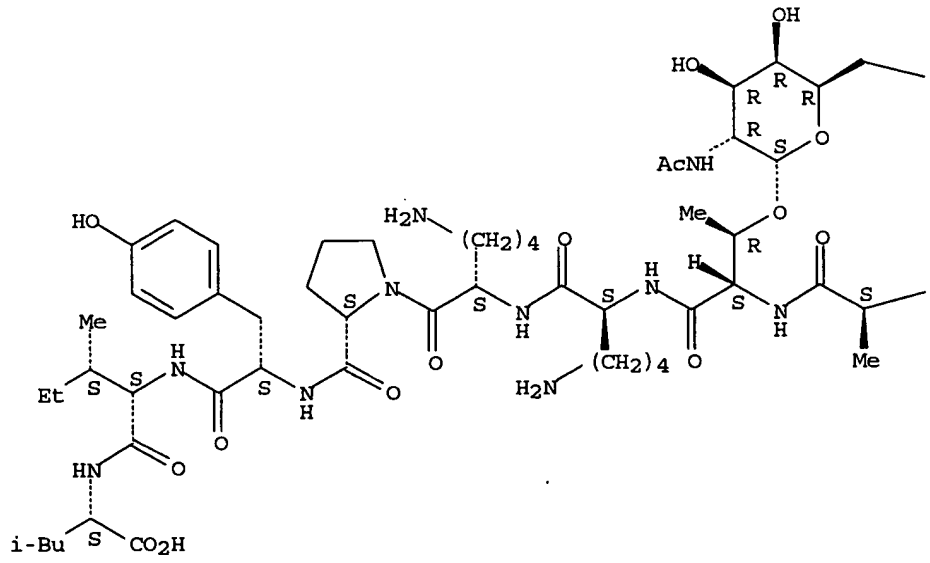
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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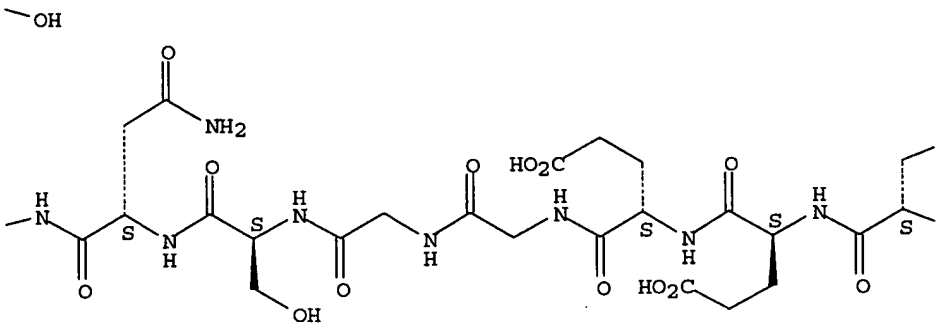

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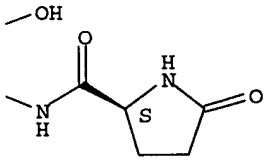

RN 478921-22-1 HCAPLUS
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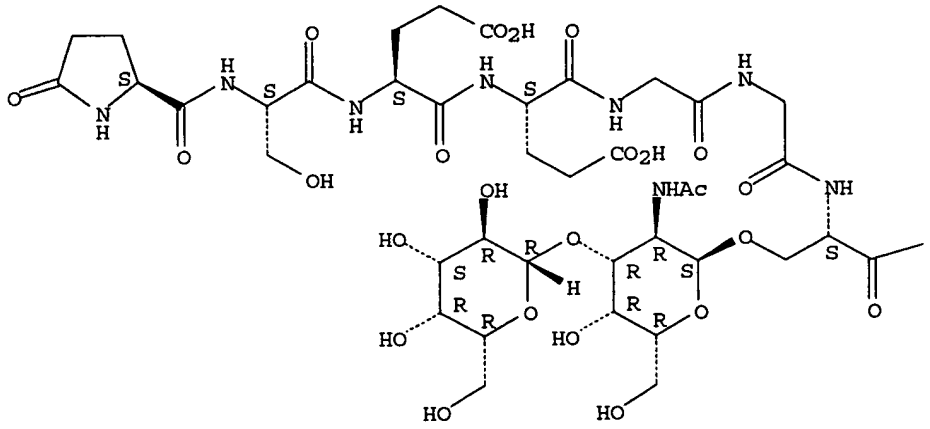
NTE modified (modifications unspecified)

SEQ 1 XSEEGGSNAT KKPYIL

Absolute stereochemistry.

PAGE 1-A



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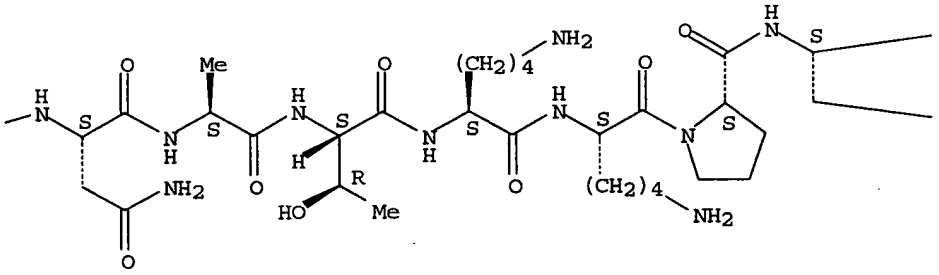

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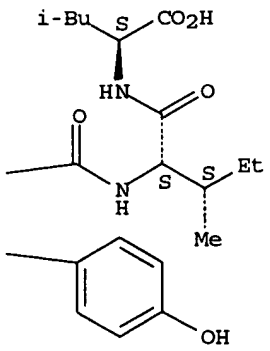

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Andreotti, A	1993	115	3352	J Am Chem Soc	HCAPLUS
Buck, M	1998	31	297	Q Rev Biophys	HCAPLUS
Craig, A	1999	274	13752	J Biol Chem	HCAPLUS
Craig, A				Manuscript in prepar	
Dyson, H	1991	20	519	Annu Rev Biophys Che	HCAPLUS
Dyson, H	1988	201	161	J Mol Biol	HCAPLUS
Huang, X	1997	36	10846	Biochemistry	HCAPLUS
Huang, X	1996	393	280	FEBS Lett	HCAPLUS
Jones, R	2000	3	141	Curr Opin Drug Disco	HCAPLUS
Kirnarsky, L	2001	39	12076	Biochemistry	
Liang, R	1995	117	10395	J Am Chem Soc	HCAPLUS
Live, D	1996	93	12759	Proc Natl Acad Sci U	HCAPLUS
Maeji, N	1987	29	699	Int J Peptide Res	HCAPLUS
Marion, D	1983	113	967	Biochem Biophys Res	HCAPLUS
McManus, A	1999	38	705	Biochemistry	HCAPLUS
Merutka, G	1995	5	14	J Biomol NMR	HCAPLUS
Mimura, Y	1992	14	242	Int J Biol Macromol	HCAPLUS
Naganagowda, G	1999	54	290	J Peptide Res	HCAPLUS
O'Connor, S	1998	5	427	Chem Biol	HCAPLUS
Piotto, M	1992	2	661	J Biomol NMR	HCAPLUS
Polt, R	2001	26	561	Drugs of the Future	HCAPLUS
Rickert, K	1995	2	751	Chem Biol	HCAPLUS
Wagstaff, J	1999	25	1944	Proceedings of the 2	
Wuthrich, K	1986		169	NMR of proteins and	
Zimmermann, G	1995	34	13663	Biochemistry	HCAPLUS

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FILE 'USPATFULL' ENTERED AT 11:22:01 ON 27 OCT 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 11:22:01 ON 27 OCT 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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L14  ANSWER 2 OF 10  USPATFULL on STN
AN     2005:234064  USPATFULL
TI     Contulakin-G, analogs thereof and uses therefor
IN     Craig, A. Grey, Solana Beach, CA, UNITED STATES
       Griffin, David, Greenville, NC, UNITED STATES
       Olivera, Baldomero M., Salt Lake City, UT, UNITED STATES
       Watkins, Maren, Salt Lake City, UT, UNITED STATES
       Hillyard, David R., Salt Lake City, UT, UNITED STATES
       Imperial, Julita, Salt Lake City, UT, UNITED STATES
       Cruz, Lourdes J., Manila, PHILIPPINES
       Wagstaff, John D., Salt Lake City, UT, UNITED STATES
       Layer, Richard T., Sandy, UT, UNITED STATES
       Jones, Robert M., Salt Lake City, UT, UNITED STATES
       McCabe, R. Tyler, Salt Lake City, UT, UNITED STATES
PA     University of Utah Research Foundation, Salt Lake City, UT, UNITED
       STATES (U.S. corporation)
       Cognetix, Inc., Salt Lake City, UT, UNITED STATES (U.S. corporation)
       The Salk Institute for Biological Studies, La Jolla, CA, UNITED STATES
       (U.S. corporation)
PI     US2005203003       A1   20050915
AI     2002US-0067857     A1   20020208 (10)
RLI    Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, GRANTED,
       Pat. No. US---6369193
PRAI   1998US-105015P      19981020 (60)
       1999US-128561P      19990409 (60)
       1999US-130661P      19990423 (60)
DT     Utility
FS     APPLICATION
LREP   ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K STREET, N.W., SUITE 800,
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WASHINGTON, DC, 20005, US
CLMN Number of Claims: 48
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 2267
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 3 OF 10 USPATFULL on STN
AN 2004:95304 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Wagstaff, John D., Salt Lake City, UT, UNITED STATES
Layer, Richard T., Sandy, UT, UNITED STATES
McCabe, R. Tyler, Salt Lake City, UT, UNITED STATES
PA Cognetix, Inc., Salt Lake City, UT, UNITED STATES. 84108 (U.S. corporation)
PI US2004072758 A1 20040415
AI 2003US-0695516 A1 20031029 (10)
RLI Continuation of Ser. No. 2002US-0067857, filed on 8 Feb 2002, PENDING
Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, GRANTED, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K STREET, N.W., SUITE 800, WASHINGTON, DC, 20005
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 2214
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone

encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 4 OF 10 USPATFULL on STN
AN 2004:46784 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Manila, PHILIPPINES
Wagstaff, John D., Satl Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6696408 B1 20040224
AI 2000US-0606247 20000629 (9)
RLI Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1999US-130661P 19990423 (60)
1999US-128561P 19990409 (60)
1998US-105015P 19981020 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Eyler, Yvonne; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2131
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide.

The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 5 OF 10 USPATFULL on STN
AN 2003:53789 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Wagstaff, John D., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6525021 B1 20030225
AI 2000US-0609534 20000630 (9)
RLI Continuation-in-part of Ser. No. 2000US-0606247, filed on 29 Jun 2000
Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Romeo, David S.; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg Ernst & Manbeck, p.c.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2199
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **499802-77-6**, Contulakin-G (Conus geographus venom)
(amino acid sequence; contulakin-G, analogs and uses therefor)
IT **229180-41-0**, Contulakin G **499802-79-8**
(contulakin-G, analogs and uses therefor)
IT **499805-87-7 499805-89-9**
(unclaimed protein sequence; contulakin-G, analogs thereof and uses therefor)
IT **499802-77-6**, Contulakin-G (Conus geographus venom)
(amino acid sequence; contulakin-G, analogs and uses therefor)
RN 499802-77-6 USPATFULL
CN Contulakin-G (Conus geographus venom) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 6 OF 10 USPATFULL on STN
AN 2002:317408 USPATFULL
TI Contulakin-G, analogs thereof and uses thereof
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Manila, PHILIPPINES
Wagstaff, John D., Salt Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA Cognetix, Inc., Salt Lake City, UT, United States (U.S. corporation)
PI US---6489298 B1 20021203
AI 2000US-0605991 20000629 (9)
RLI Continuation of Ser. No. 1999US-0420797, filed on 19 Oct 1999, now patented, Pat. No. US---6369193
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Romeo, David S.; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck, P.C.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2133
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**

(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 8 OF 10 USPATFULL on STN
AN 2002:24371 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffin, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Wagstaff, John D., Salt Lake City, UT, United States
Layer, Richard T., Sandy, UT, United States
Jones, Robert M., Salt Lake City, UT, United States
McCabe, R. Tyler, Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---6344551 B1 20020205
AI 2000US-0605990 20000629 (9)
RLI Division of Ser. No. 1999US-0420797, filed on 19 Oct 1999
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mertz, Prema; Assistant Examiner: Murphy, Joseph
LREP Rothwell, Figg, Ernst & Manbeck. p.c.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 33 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2066
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic

use)
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

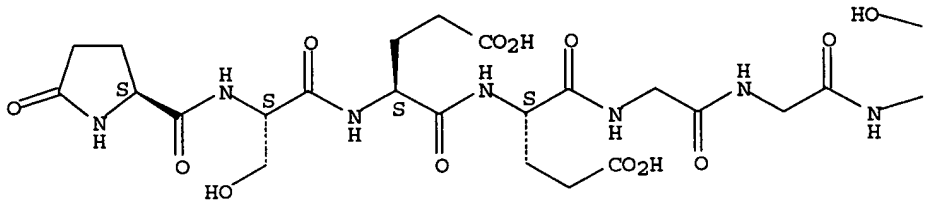
=> d bib abs hitstr l14 1 7 9-10

L14 ANSWER 1 OF 10 USPATFULL on STN
AN 2006:210856 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, UNITED STATES
Rivier, Jean E. F., La Jolla, CA, UNITED STATES
Cruz, Lourdes J., Salt Lake City, UT, UNITED STATES
Abogadie, Fe, Evanston, IL, UNITED STATES
Hopkins, Chris E., Salt Lake City, UT, UNITED STATES
Dykert, John, Vista, CA, UNITED STATES
Torres, Josep L., Barcelona, SPAIN
PA University of Utah Research Foundation, Salt Lake City, UT, UNITED STATES (U.S. corporation)
The Salk Institute for Biological Studies, LaJolla, CA, UNITED STATES (U.S. corporation)
PI US-----39240 E1 20060815
US---5700778 19971223 (Original)
AI 1999US-0469496 19991222 (9)
1995US-0458499 19950602 (Original)
RLI Division of Ser. No. 1993US-0084848, filed on 29 Jun 1993, Pat. No. US---5432155
DT Reissue
FS GRANTED
EXNAM Primary Examiner: Bugaisky, Gabriele
LREP Rothwell Figg Ernst & Manbeck
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1406
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetyl-choline receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be incorporated as plant defense genes into plant species of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **162717-63-7P**
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)
RN 162717-63-7 USPATFULL
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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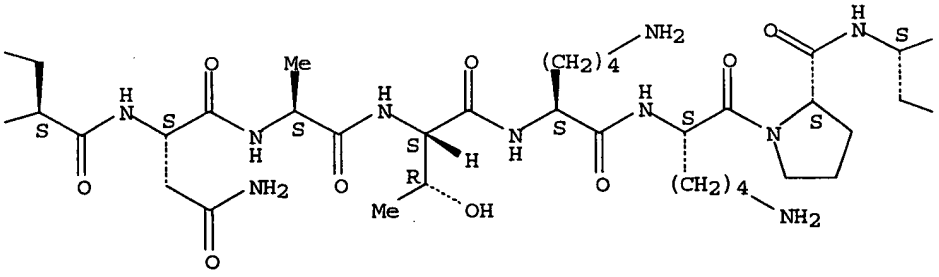

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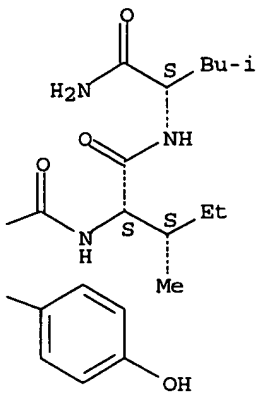


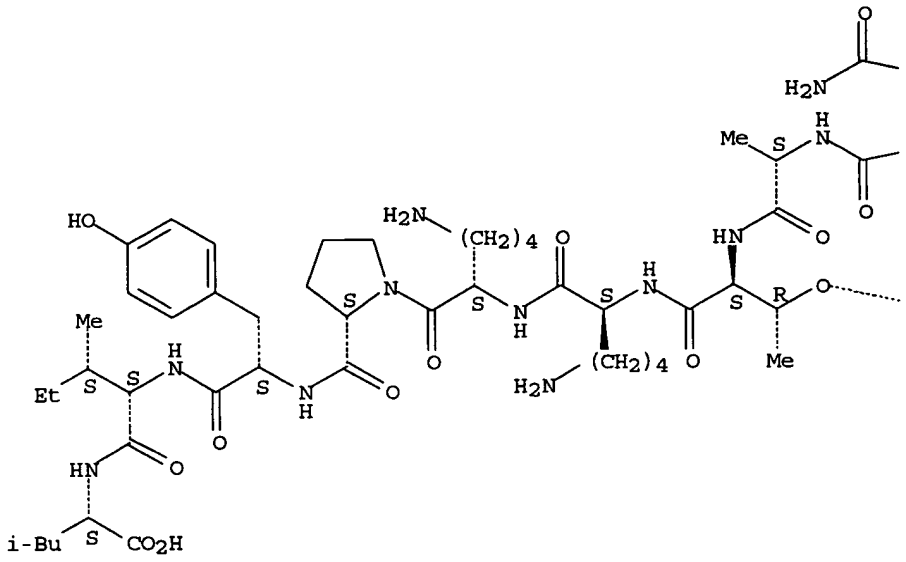
L14 ANSWER 7 OF 10 USPATFULL on STN
AN 2002:75554 USPATFULL
TI Contulakin-G, analogs thereof and uses therefor
IN Craig, A. Grey, Solana Beach, CA, United States
Griffen, David, Greenville, NC, United States
Olivera, Baldomero M., Salt Lake City, UT, United States
Watkins, Maren, Salt Lake City, UT, United States
Hillyard, David R., Salt Lake City, UT, United States
Imperial, Julita, Salt Lake City, UT, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
PA University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)
PI US---6369193 B1 20020409
AI 1999US-0420797 19991019 (9)
PRAI 1998US-105015P 19981020 (60)
1999US-128561P 19990409 (60)
1999US-130661P 19990423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mertz, Prema; Assistant Examiner: Murphy, Joseph F.
LREP Rothwell, Figg, Ernst & Manbeck, P.C.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr.sub.10-contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **264900-54-1P**
(amino acid sequence; contulakin-G and analogs for therapeutic use)
RN 264900-54-1 USPATFULL
CN Contulakin-G (Conus geographus venom duct precursor) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE
IT **229180-41-0**, Contulakin G
(contulakin-G and analogs for therapeutic use)
RN 229180-41-0 USPATFULL
CN Contulakin G (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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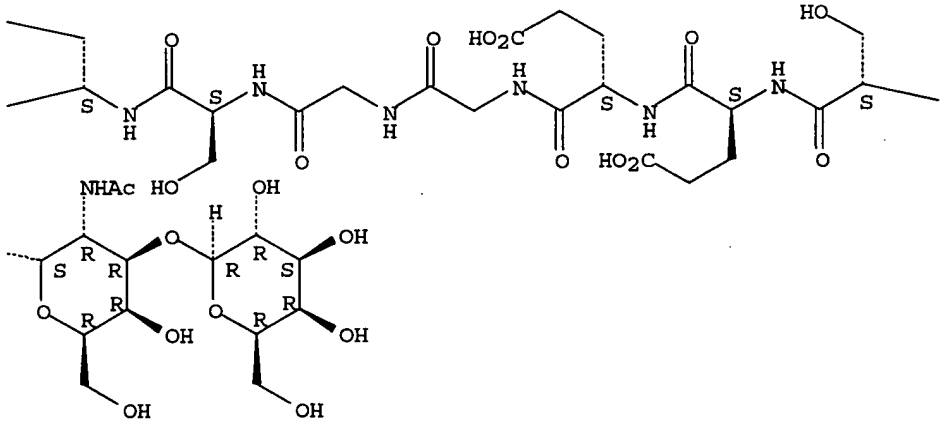

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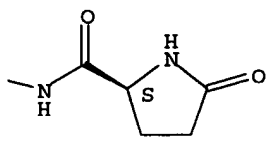
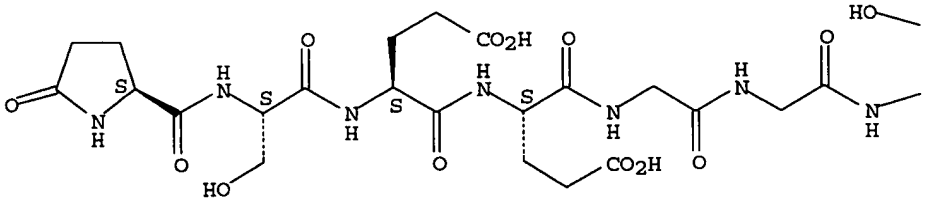


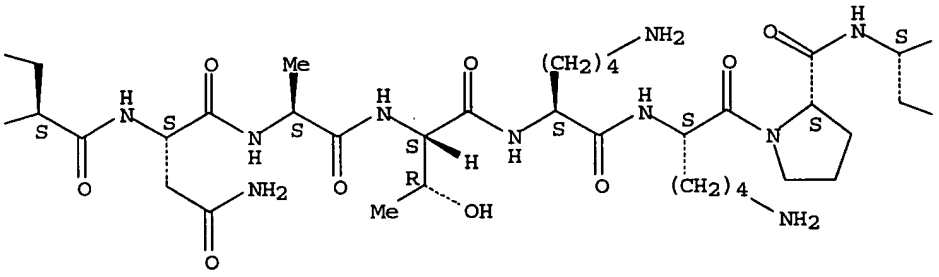
IT **229180-42-1D**, glycoconjugates **264915-05-1**
(contulakin-G and analogs for therapeutic use)
RN 229180-42-1 USPATFULL
CN L-Leucine, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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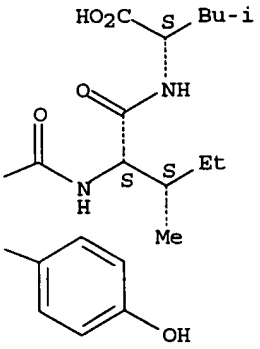


RN 264915-05-1 USPATFULL
CN Peptide, (Xaa-Xaa-Xaa-Xaa-Gly-Gly-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Ile-Leu) (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

IT **264915-08-4**
(unclaimed protein sequence; contulakin-G and analogs for therapeutic use)
RN 264915-08-4 USPATFULL
CN 5: PN: WO0023092 SEQID: 7 unclaimed protein (9CI) (CA INDEX NAME)

STRUCTURE DIAGRAM IS NOT AVAILABLE

L14 ANSWER 9 OF 10 USPATFULL on STN
AN 97:120595 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, United States
Rivier, Jean E.F., La Jolla, CA, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Abogadie, Fe, Evanston, IL, United States
Hopkins, Chris E., Salt Lake City, UT, United States
Dykert, John, Vista, CA, United States
Torres, Josep L., Barcelona, Spain
PA The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)
University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---5700778 19971223
AI 1995US-0458499 19950602 (8)
RLI Division of Ser. No. 1993US-0084848, filed on 29 Jun 1993, now patented, Pat. No. US---5432155
DT Utility
FS Granted
EXNAM Primary Examiner: Tsang, Cecilia J.; Assistant Examiner: Delaney, Patrick R.
LREP Fitch, Even, Tabin & Flannery
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1321
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be

incorporated as plant defense genes into plant species of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **162717-63-7P**

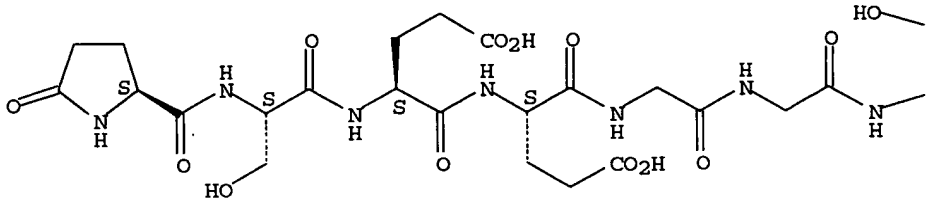
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)

RN 162717-63-7 USPATFULL

CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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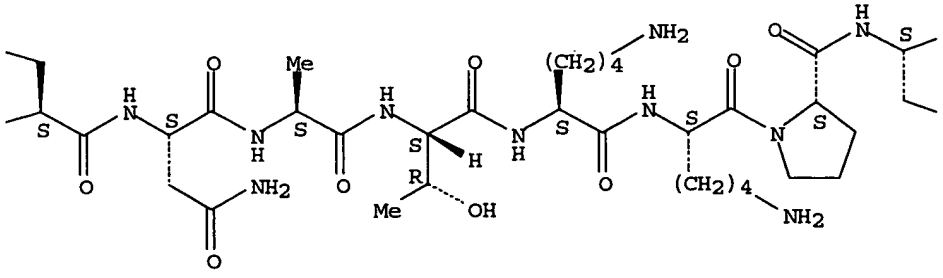

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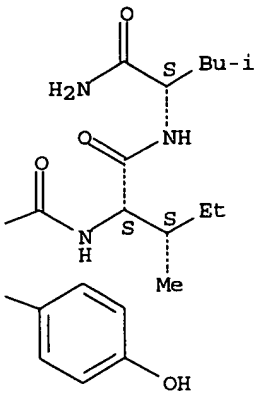
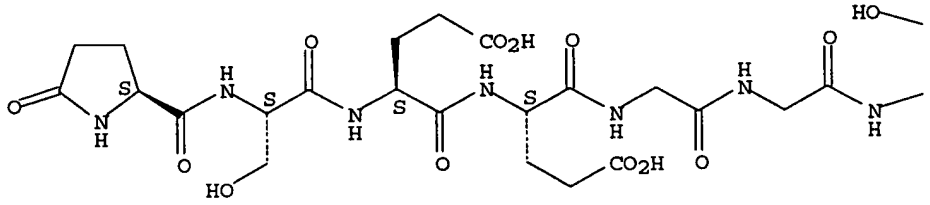


L14 ANSWER 10 OF 10 USPATFULL on STN
AN 95:62707 USPATFULL
TI Conotoxins I
IN Olivera, Baldomero M., Salt Lake City, UT, United States
Rivier, Jean E. F., La Jolla, CA, United States
Cruz, Lourdes J., Salt Lake City, UT, United States
Abogadie, Fe, Evanston, IL, United States
Hopkins, Chris E., Salt Lake City, UT, United States
Dykert, John, Vista, CA, United States
Torres, Josep L., Barcelona, Spain
PA The Salk Institute For Biological Studies, San Diego, CA, United States (U.S. corporation)
University of Utah Research Foundation, Salt Lake City, UT, United States (U.S. corporation)
PI US---5432155 19950711
AI 1993US-0084848 19930629 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Furman, Keith C.
LREP Fitch, Even, Tabin & Flannery
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1335
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chemical synthesis. They also may be made using recombinant DNA techniques, and the DNA encoding such conotoxins having pesticidal properties can be incorporated as plant defense genes into plant species of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **162717-63-7P**
(conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals)
RN 162717-63-7 USPATFULL
CN L-Leucinamide, 5-oxo-L-prolyl-L-seryl-L-α-glutamyl-L-α-glutamylglycylglycyl-L-seryl-L-asparaginyl-L-alanyl-L-threonyl-L-lysyl-L-lysyl-L-prolyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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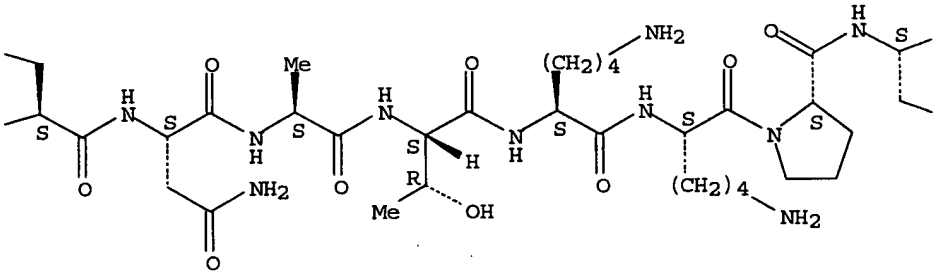

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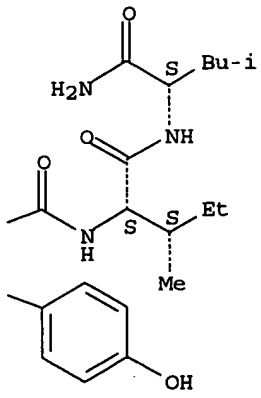

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     FILE 'REGISTRY' ENTERED AT 11:07:05 ON 27 OCT 2006

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L5             7 L4 AND 16/SQL
L6             5 L5 AND MAN/CI

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L11            5 L10 AND L3

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L16           36 E3,E13-14
                 E LAYER R/AU
L17           43 E4,E6-8
                 E MCCABE R/AU
L18           61 E3,E10-11
                 E MC CABE R/AU
                 E MCCABE T/AU
L19           34 E3-6
L20         2753 (COGNETIX OR SALK (1A)INSTITUTE? OR UTAH (1W)RES? (1A)FOUND?)/C
L21            5 L15 AND L16-20
L22            3 L15 NOT L21

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Copyright (c) 2006 The Thomson Corporation

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 27 October 2006 (20061027/ED)


=> d all l25 tot
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L25 ANSWER 1 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2004:175584 BIOSIS
DN PREV200400177650
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint Author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Manila, Philippines
ASSIGNEE: University of Utah Research Foundation; Cognetix, Inc.
PI US---6696408 20040224
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 24 2004) Vol. 1279, No. 4. http://www.uspto.gov/web/menu/patdata.html . e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 31 Mar 2004
Last Updated on STN: 31 Mar 2004
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514002000
CC Pathology - Therapy 12512
Digestive system - Pathology 14006
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Nervous system - Pathology 20506
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Digestive system 22014
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
IT Major Concepts
Pharmacology
IT Diseases
cardiovascular disease: heart disease, vascular disease, drug therapy
Cardiovascular Diseases (MeSH)
IT Diseases
gastrointestinal disease: digestive system disease, drug therapy
Gastrointestinal Diseases (MeSH)
IT Diseases
neurological disease: nervous system disease, drug therapy
Nervous System Diseases (MeSH)
IT Diseases
psychological disorders: behavioral and mental disorders, drug therapy
IT Chemicals & Biochemicals
contulakin-G: anticonvulsant-drug, antiinflammatory-drug, antimanic-drug, antipsychotic-drug, cardiovascular-drug, gastrointestinal-drug, immunologic-drug, neuroprotectant-drug; des-glycosylated contulakin-G: anticonvulsant-drug, antiinflammatory-drug, antimanic-drug, antipsychotic-drug,

cardiovascular-drug, gastrointestinal-drug, immunologic-drug, neuroprotectant-drug
RN 229180-41-0 (contulakin-G)

L25 ANSWER 2 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2003:161959 BIOSIS
DN PREV200300161959
TI Contulakin-G, analogs thereof and uses therefor.
AU Wagstaff, John D. [Inventor, Reprint Author]; McCabe, R. Tyler [Inventor]
CS ASSIGNEE: Cognetix, Inc.
PI US---6525021 20030225
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 25 2003) Vol. 1267, No. 4. http://www.uspto.gov/web/menu/patdata.html . e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 26 Mar 2003
Last Updated on STN: 26 Mar 2003
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for cytoprotection (including neuroprotection and cardioprotection), anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514008000
CC Genetics - General 03502
Pathology - Therapy 12512
Pharmacology - General 22002
Pharmacology - Blood and hematopoietic agents 22008
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Digestive system 22014
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Pharmacology
IT Chemicals & Biochemicals
cDNA clone [complementary DNA clone]; contulakin-G: analgesic-drug, antiaddictive-drug, antiatherogenic-drug, antidepressant-drug, antidiarrheal-drug, antihypertensive-drug, antiinflammatory-drug, antimanic-drug, antineoplastic-drug, antipsychotic-drug, antithrombotic-drug, anxiolytic-drug, cardiovascular-drug, gastrointestinal-drug, hematologic-drug, immunologic-drug, neuroprotectant-drug, nootropic-drug, native glycosylated peptide; contulakin-G analogs; des-glycosylated contulakin-G [Thr-10-contulakin-G]; precursor peptide
IT Methods & Equipment
cardioprotection: clinical techniques, therapeutic and prophylactic techniques; cytoprotection: clinical techniques, therapeutic and prophylactic techniques; neuroprotection: clinical techniques, therapeutic and prophylactic techniques
RN 229180-41-0 (contulakin-G)

L25 ANSWER 3 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AN 2003:56998 BIOSIS
DN PREV200300056998
TI Contulakin-G, analogs thereof and uses thereof.
AU Craig, A. Grey [Inventor, Reprint Author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Manila, Philippines
ASSIGNEE: Cognetix, Inc.
PI US---6489298 20021203
SO Official Gazette of the United States Patent and Trademark Office Patents, (Dec 3 2002) Vol. 1265, No. 1. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 514013000
CC Pathology - Therapy 12512
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018
Pharmacology - Neuropharmacology 22024
Pharmacology - Psychopharmacology 22026
IT Major Concepts
Pharmacology
IT Chemicals & Biochemicals
contulakin-G: analgesic-drug, anticonvulsant-drug, antidepressant-drug, antihypotensive-drug, antiinflammatory-drug, antiparkinsonian-drug, antipsychotic-drug, anxiolytic-drug, cardiovascular-drug, general anesthetic-drug, immunologic-drug, analogs, des-glycosylated
RN **229180-41-0** (contulakin-G)

L25 ANSWER 4 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2002:282958 BIOSIS
DN PREV200200282958
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint author]; Griffen, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]
CS Solana Beach, CA, USA
ASSIGNEE: University of Utah Research Foundation; The Salk Institute for Biological Studies
PI US---6369193 20020409
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 9, 2002) Vol. 1257, No. 2. http://www.uspto.gov/web/menu/patdata.htm l. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent

LA English
ED Entered STN: 8 May 2002
Last Updated on STN: 8 May 2002
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 530300000
CC Biochemistry studies - Proteins, peptides and amino acids 10064
Behavioral biology - Human behavior 07004
Pathology - Therapy 12512
Digestive system - Pathology 14006
Nervous system - Pathology 20506
Psychiatry - Psychopathology, psychodynamics and therapy 21002
Pharmacology - General 22002
IT Major Concepts
Gastroenterology (Human Medicine, Medical Sciences); Neurology (Human Medicine, Medical Sciences); Pharmacology; Psychiatry (Human Medicine, Medical Sciences)
IT Chemicals & Biochemicals
contulakin-G: peptide, pharmaceutical
RN **229180-41-0** (contulakin-G)

L25 ANSWER 5 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2002:192386 BIOSIS
DN PREV200200192386
TI Contulakin-G, analogs thereof and uses therefor.
AU Craig, A. Grey [Inventor, Reprint author]; Griffin, David [Inventor]; Olivera, Baldomero M. [Inventor]; Watkins, Maren [Inventor]; Hillyard, David R. [Inventor]; Imperial, Julita [Inventor]; Cruz, Lourdes J. [Inventor]; Wagstaff, John D. [Inventor]; Layer, Richard T. [Inventor]; Jones, Robert M. [Inventor]; McCabe, R. Tyler [Inventor]
CS Solana Beach, CA, USA
ASSIGNEE: University of Utah Research Foundation
PI US---6344551 20020205
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb. 5, 2002) Vol. 1255, No. 1. http://www.uspto.gov/web/menu/patdata.htm l. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 13 Mar 2002
Last Updated on STN: 13 Mar 2002
AB The present invention is directed to contulakin-G (which is the native glycosylated peptide), a des-glycosylated contulakin-G (termed Thr10 -contulakin-G), and derivatives thereof, to a cDNA clone encoding a precursor of this mature peptide and to a precursor peptide. The invention is further directed to the use of this peptide as a therapeutic for anti-seizure, anti-inflammatory, anti-shock, anti-thrombus, hypotensive, analgesia, anti-psychotic, Parkinson's disease, gastrointestinal disorders, depressive states, cognitive dysfunction, anxiety, tardive dyskinesia, drug dependency, panic attack, mania, irritable bowel syndrome, diarrhea, ulcer, GI tumors, Tourette's syndrome, Huntington's chorea, vascular leakage, anti-arteriosclerosis, vascular and vasodilation disorders, as well as neurological, neuropharmalogical and neuropsychopharmacological disorders.
NCL 536235000

CC Psychiatry - Addiction: alcohol, drugs, smoking 21004
Pathology - General 12502
Pathology - Therapy 12512
Digestive system - Pathology 14006
Cardiovascular system - Blood vessel pathology 14508
Nervous system - Pathology 20506
Pharmacology - General 22002
IT Major Concepts
Human Medicine (Medical Sciences); Pharmacology
IT Diseases
Huntington's chorea: nervous system disease
Huntington Disease (MeSH)
IT Diseases
Parkinson's disease: nervous system disease
Parkinson Disease (MeSH)
IT Diseases
Tourette's syndrome: behavioral and mental disorders, nervous system disease
Tourette Syndrome (MeSH)
IT Diseases
anxiety: behavioral and mental disorders
Anxiety (MeSH)
IT Diseases
arteriosclerosis: vascular disease
Arteriosclerosis (MeSH)
IT Diseases
cognitive dysfunction: behavioral and mental disorders
Cognition Disorders (MeSH)
IT Diseases
depression: behavioral and mental disorders
Depression (MeSH)
IT Diseases
diarrhea: digestive system disease
Diarrhea (MeSH)
IT Diseases
gastrointestinal disorders: digestive system disease
Gastrointestinal Diseases (MeSH)
IT Diseases
hypotension: vascular disease
Hypotension (MeSH)
IT Diseases
irritable bowel syndrome: digestive system disease
Colonic Diseases, Functional (MeSH)
IT Diseases
mania: behavioral and mental disorders
Bipolar Disorder (MeSH)
IT Diseases
neurological disorder: nervous system disease
IT Diseases
panic attack: behavioral and mental disorders
Panic Disorder (MeSH)
IT Diseases
psychosis: behavioral and mental disorders
Psychotic Disorders (MeSH)
IT Diseases
seizure: nervous system disease, convulsion
Seizures (MeSH)
IT Diseases
substance abuse: behavioral and mental disorders
Substance-Related Disorders (MeSH)
IT Diseases
tardive dyskinesia: nervous system disease
Dyskinesia, Drug-Induced (MeSH)
IT Diseases
ulcer: digestive system disease
Ulcer (MeSH)

IT Diseases
vascular leakage: vascular disease
IT Chemicals & Biochemicals
contulakin-G: native glycosylated peptide, pharmaceutical
IT Miscellaneous Descriptors
inflammation; shock; thrombus
RN **229180-41-0** (contulakin-G)

L25 ANSWER 6 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:137996 BIOSIS
DN PREV200100137996
TI Enzymatic glycosylation of contulakin-G, a glycopeptide isolated from Conus venom, with a mammalian ppGalNAc-transferase.
AU Craig, A. G. [Reprint author]; Park, M.; Fischer, W. H.; Kang, J.; Compain, P.; Piller, F.
CS The Clayton Laboratories for Peptide Biology, The Salk Institute, San Diego, CA, 92186-5800, USA
craig@salk.edu
SO Toxicon, (June, 2001) Vol. 39, No. 6, pp. 809-815. print.
CODEN: TOXIA6. ISSN: 0041-0101.
DT Article
LA English
ED Entered STN: 14 Mar 2001
Last Updated on STN: 15 Feb 2002
AB We have determined that the mammalian uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyl-transferase T1 (EC 2.4.1.41) has the appropriate acceptor substrate specificity to recognize the non-glycosylated form of contulakin-G (ZSEEGGSNATKKPYIL-OH where Z = pyroglutamic acid) and to transfer GalNAc to the peptide. Both (Thr10) contulakin-G and a pre-contulakin-G30-66 (RGLVPDDITPQLILGSLISRRQSEEGGSNATK KPYIL-OH) were shown to be acceptors for the mammalian enzyme. The site of attachment of the GalNAc residue was determined using chemical and radioactive sequencing techniques. The mammalian enzyme was highly specific for Thr10 residue, in which the native peptide was found to be glycosylated, compared with either Ser2 or Ser7. In the case of pre-contulakin-G, the enzyme was also highly specific for the equivalent threonine residue. These results suggest that the Cone snail uses an enzyme with similar acceptor specificity to that of the mammalian polypeptide N-acetylgalactosaminyltransferase for glycosylating contulakin-G.
CC Enzymes - General and comparative studies: coenzymes 10802
Toxicology - General and methods 22501
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Toxicology
IT Parts, Structures, & Systems of Organisms
venom
IT Chemicals & Biochemicals
contulakin-G: enzymatic glycosylation; pre-contulakin; uridine diphospho-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T1 [EC 2.4.1.41]
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus [snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Mammalia 85700
Super Taxa
Vertebrata; Chordata; Animalia
Organism Name
mammal

Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates
RN **229180-41-0** (contulakin-G)
9075-15-4 (EC 2.4.1.41)

L25 ANSWER 7 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:99449 BIOSIS
DN PREV200100099449
TI Antinociceptive effects of spinal contulakin-G, a cone snail-derived neurotensin.
AU Gurkoff, G. G. [Reprint author]; Wagstaff, J. D.; Layer, R. T.; McCabe, T.; Basbaum, A. I.
CS UCSF, San Francisco, CA, USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-351.7. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002
AB Contulakin-G is a cone snail (Conus Geographus)-derived 16 amino acid protein that binds rat neurotensin (NT) receptor types 1 and 2, as well as human NT type 1 receptor. NT receptors have been identified in the superficial dorsal horn and in PAG and RVM, two loci implicated in the modulation of pain. NT also has antinociceptive properties but with considerable adverse side effects. Consistent with these data, when delivered icv in rat, and dependent on the dose, contulakin-G mimics the effects of NT, producing antinociception, motor impairment and hypothermia. Here we examined the antinociceptive actions of intrathecal contulakin-G in the formalin test, a model of postoperative pain. In the rat, contulakin dose-dependently reduced first and second phases of formalin-evoked pain behavior. The highest dose tested (3 nmols) abolished formalin-evoked pain; this dose was associated with moderate reduction in motor function on the rotarod. Lower doses (0.1 and 0.3 nmols) reduced pain behavior in both phases with no impairment on the rotarod. Because direct spinal delivery of contulakin can produce profound antinociception with very limited side effects, namely hypothermia, grooming dysfunction and motor impairment, these results indicate that spinal contulakin-G has significant potential as an analgesic in clinical pain conditions.
CC Pharmacognosy and pharmaceutical botany 54000
General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Proteins, peptides and amino acids 10064
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Nervous system - Pathology 20506
Pharmacology - Neuropharmacology 22024
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Nervous System (Neural Coordination); Pharmacognosy (Pharmacology)
IT Diseases
postoperative pain: nervous system disease
Pain, Postoperative (MeSH)
IT Chemicals & Biochemicals
contulakin-G: analgesic-drug, Conus geographus extract, neurotensin; neurotensin receptor type 1; neurotensin receptor type 2
IT Miscellaneous Descriptors
motor function; pain modulation; Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa

Mollusca; Invertebrata; Animalia
Organism Name
Conus geographus [cone snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat: animal model
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)

L25 ANSWER 8 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2001:97785 BIOSIS
DN PREV200100097785
TI Novel peptide analgesic from mollusc-hunting cone snail.
AU McIntosh, J. M. [Reprint author]; Corpuz, G. O.; Layer, R. T.; Garrett, J. E.; Wagstaff, J. D.; Vyazovkina, A.; Bulaj, G.; Cruz, L. J.; Olivera, B. M.
CS University of Utah, Salt Lake City, UT, USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-400.4. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002
AB Cone snails are tropical marine molluscs that envenomate their prey with a complex mixture of pharmacologically active compounds. Due to their high potency and selectivity, several cone snail-derived peptides are under development for the treatment of human disorders. Specific examples are omega-conotoxin MVIIA (ziconotide), an N-type calcium channel antagonist, and contulakin-G, a neurotensin agonist. Both peptides, isolated from fish-hunting cone snails, show promise as novel agents for treatment of pain syndromes. We now report the purification and biochemical characterization of a novel twelve amino acid, disulfide-rich conopeptide from a mollusc-hunting cone snail that produces dose-dependent analgesia in mice as measured by a hot-plate test. This peptide is structurally unrelated to previously isolated conotoxins. Intrathecal doses (0.1 nmol-10 nmol) that produce analgesia do not produce motor impairment as measured by rotorod test. Thus, the new cone venom peptide represents a novel lead for conopeptide analgesics.
CC Pharmacognosy and pharmaceutical botany 54000
General biology - Symposia, transactions and proceedings 00520
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Nervous system - Pathology 20506
Pharmacology - Neuropharmacology 22024
Invertebrata: comparative, experimental morphology, physiology and pathology - Mollusca 64026
IT Major Concepts
Nervous System (Neural Coordination); Pharmacognosy (Pharmacology)
IT Diseases
pain syndrome: nervous system disease
IT Chemicals & Biochemicals
conopeptide: analgesic activity, disulfide-rich; contulakin-G: neuroprotectant-drug; o-conotoxin MVIIA [ziconotide]: neuroprotectant-drug
IT Methods & Equipment

hot plate test: analytical method; rotorod test: analytical method
IT Miscellaneous Descriptors
Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
cone snail: mollusc-hunting
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
107452-89-1 (ZICONOTIDE)

L25 ANSWER 9 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2000:147648 BIOSIS
DN PREV200000147648
TI Contulakins: Potent, broad-spectrum analgesic conopeptides.
AU Wagstaff, J. D. [Reprint author]; Layer, R. T. [Reprint author]; Craig, A. G.; Olivera, B. M.; McCabe, R. T. [Reprint author]
CS Cognetix, Inc., Salt Lake City, UT, 84108, USA
SO Society for Neuroscience Abstracts, (1999) Vol. 25, No. 1-2, pp. 1944. print.
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA. October 23-28, 1999. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Apr 2000
Last Updated on STN: 4 Jan 2002
CC Nervous system - General and methods 20501
Biochemistry studies - General 10060
Biophysics - General 10502
Pharmacology - General 22002
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Nervous System (Neural Coordination); Pharmacology
IT Diseases
neuropathic pain, nervous system
Pain (MeSH)
IT Chemicals & Biochemicals
contulakin G; contulakins: analgesics; neurotensin; neurotensin receptors
IT Miscellaneous Descriptors
acute pain; Meeting Abstract
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus geographicus [marine snail]
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa

Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin G)
39379-15-2 (neurotensin)

L25 ANSWER 10 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2000:144567 BIOSIS
DN PREV200000144567
TI Effect of neurotensin receptor agonist contulakin-G on dopamine release from rat striatal synaptosomes.
AU Kulak, J. M. [Reprint author]; Craig, A. G.; Wagstaff, J.; Layer, R. T.; Imperial, J. [Reprint author]; Olivera, B. M. [Reprint author]
CS Department of Biology, University of Utah, Salt Lake City, UT, 84112, USA
SO Society for Neuroscience Abstracts, (1999) Vol. 25, No. 1-2, pp. 962. print.
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA. October 23-28, 1999. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Apr 2000
Last Updated on STN: 4 Jan 2002
CC Nervous system - General and methods 20501
Cytology - Animal 02506
Biochemistry studies - General 10060
Biophysics - General 10502
Endocrine - General 17002
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Biochemistry and Molecular Biophysics; Nervous System (Neural Coordination)
IT Parts, Structures, & Systems of Organisms
striatal synaptosomes: nervous system
IT Chemicals & Biochemicals
contulakin-G: neurotensin receptor agonist; dopamine: release
IT Miscellaneous Descriptors
Meeting Abstract
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
51-61-6 (dopamine)

L25 ANSWER 11 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 1999:353191 BIOSIS
DN PREV199900353191
TI Contulakin-G, an O-glycosylated invertebrate neurotensin.
AU Craig, A. Grey; Norberg, Thomas; Griffin, David; Hoeger, Carl; Akhtar, Mateen; Schmidt, Karsten; Low, William; Dykert, John; Richelson, Elliott; Navarro, Valerie; Mazella, Jean; Watkins, Maren; Hillyard, David; Imperial, Julita; Cruz, Lourdes J.; Olivera, Baldomero M. [Reprint author]
CS Department of Biology, University of Utah, Salt Lake City, UT, 84112, USA
SO Journal of Biological Chemistry, (May 14, 1999) Vol. 274, No. 20, pp.

13752-13759. print.
CODEN: JBCHA3. ISSN: 0021-9258.
DT Article
LA English
OS Genbank-AF121108
ED Entered STN: 24 Aug 1999
Last Updated on STN: 27 Oct 1999
AB We have purified contulakin-G, a 16-amino acid O-linked glycopeptide (pGlu-Ser-Glu-Glu-Gly-Gly-Ser-Asn-Ala-Thr-Lys-Lys-Pro-Tyr-Ile-Leu-OH, pGlu is pyroglutamate) from Conus geographus venom. The major glycosylated form of contulakin-G was found to incorporate the disaccharide beta-D-Galp-(1fwdarw3)-alpha-D-GalpNAc-(1fwdarw) attached to Thr10. The C-terminal sequence of contulakin-G shows a high degree of similarity to the neurotensin family of peptides. Synthetic peptide replicates of Gal(fwdarw3) GalNAc(alphafwdarw)Thr10 contulakin-G and its nonglycosylated analog were prepared using an Fmoc (9-fluorenylmethoxycarbonyl) protected solid phase synthesis strategy. The synthetic glycosylated contulakin-G, when administered intracerebroventricular into mice, was found to result in motor control-associated dysfunction observed for the native peptide. Contulakin-G was found to be active at 10-fold lower doses than the nonglycosylated Thr10 contulakin-G analog. The binding affinities of contulakin-G and the nonglycosylated Thr10 contulakin-G for a number of neurotensin receptor types including the human neurotensin type 1 receptor (hNTR1), the rat neurotensin type 1 and type 2 receptors, and the mouse neurotensin type 3 receptor were determined. The binding affinity of the nonglycosylated Thr10 contulakin-G was approximately an order of magnitude lower than that of neurotensin1-13 for all the receptor types tested. In contrast, the glycosylated form of contulakin-G exhibited significantly weaker binding affinity for all of the receptors tested. However, both contulakin-G and nonglycosylated Thr10 contulakin-G were found to be potent agonists of rat neurotensin receptor type 1. Based on these results, we conclude that O-linked glycosylation appears to be a highly unusual strategy for increasing the efficacy of toxins directed against neurotransmitter receptors.
CC Toxicology - General and methods 22501
Biochemistry studies - General 10060
Nervous system - General and methods 20501
General biology - Miscellaneous 00532
IT Major Concepts
Biochemistry and Molecular Biophysics; Nervous System (Neural Coordination); Toxicology
IT Chemicals & Biochemicals
contulakin-G: O-glycosylated neurotensin; neurotensin type 1 receptor; neurotensin type 2 receptor; neurotensins
IT Sequence Data
AF121108: Genbank, EBI, amino acid sequence, nucleotide sequence
ORGN Classifier
Gastropoda 61200
Super Taxa
Mollusca; Invertebrata; Animalia
Organism Name
Conus geographus
Taxa Notes
Animals, Invertebrates, Mollusks
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **229180-41-0** (contulakin-G)
39379-15-2 (neurotensins)

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L24           0 L13

     FILE 'BIOSIS' ENTERED AT 11:24:42 ON 27 OCT 2006
L25          11 L13
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